

HISTORICAL
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PROGRAMME OF STUDIES
FOR
THE ELEMENTARY SCHOOL
(GRADES I TO VI)

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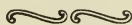
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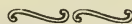
for

The Elementary School

GRADES I TO VI



Authorized by the
Department of Education



EDMONTON:
Printed by A. Shnitka, King's Printer
1936.

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FOREWORD

The twelve grades in Alberta schools, under a scheme of organization becoming effective in September, 1936, are grouped in the following manner: Grades I to VI constitute the *Elementary School*; Grades VII to IX, the *Intermediate School*; and Grades X to XII, the *High School*. In this book will be found the new *Programme for the Elementary School*.

The Grades.

In strict usage, the term *grade* signifies a *step* of advance along a scale of attainment in a given "subject", or type of school work, the successive steps corresponding to the successive years of a child's school life. Thus Grade I represents the normal attainment of a beginner during his first school year, and Grade VI represents a pupil's normal attainment at the end of his sixth school year.

Less strictly, the term *grade* denotes the basis of pupil classification. All beginners are "in Grade I," where they remain until they have reached the Grade I level of attainment in each of the Grade I "subjects," or the average Grade I level of attainment in all of the subjects taken together. Then they are "promoted" to Grade II; and later to succeeding grades in the same manner. Since, however, a pupil may advance more rapidly in one subject than in another, his grade status may differ for different subjects. He may, for example, have reached by the end of his third school year the Grade III level of attainment in Language, but only the Grade II level in Arithmetic, and the Grade I level in Reading. In what "grade" should he be placed?

In this programme the fact of individual differences is recognized. The term *grade* is used to denote merely a level of attainment in any given subject, activity or element of the school programme. In the skill subjects at least, the pupil's progress is to be measured in terms of mastery and attainment, and not by the length of time spent in school.

For one-room schools, the grade will no longer serve as the basis of classification and promotion. Pupils will here be classified by divisions: they will be promoted from Division I to Division II, and from Division II to the Intermediate School. For village, town and city schools, the grade will still be a necessary basis of organization. In two-room or three-room schools, it will be desirable wherever possible to group the grades of Division I, or of Division II, under one teacher. In some schools of four or of five rooms, it may be impossible to avoid grouping Grade III pupils with Grade IV pupils. In such cases, the principal should do all in his power to minimize the rigidity of the grade organization, by affording opportunities for re-grouping in the social activities and experiences. The great aim of the new programme is to encourage flexibility in organization, and the adapting of instruction to individual needs.

Guiding Principles.

This programme is in substance an "activity programme." To a large extent, however, it is a home-grown product, adapted to the particular needs of Alberta schools. It is based on the following principles:

1. Learning is not something that a child *gets*, but something that he *does*. The child grows into knowledge, skill, appreciation and culture; he does not take these things from the hands of the teacher.

2. The school programme must respond meaningfully and purposefully to the child's call for things to do, by setting up goals for the child's activity as well as objectives for the teacher. While the teacher keeps an eye on the changes produced in the child by the child's activity, the child, on the other hand, centres his attention in his undertaking. The "things to do" must therefore reside in the experience of the child; they must be worth-while in the eyes of the child. Goals desirable to the child must be—
 - (1) *Objective*: The child should be able to conceive beforehand, in a general way, the result of his work.
 - (2) *Immediate*: Remote goals have no appeal to the child.
 - (3) *Accessible*: A goal that cannot be achieved to the satisfaction of the child is not likely to inspire him to further activity.
3. The natural way of learning used by children in their play life may be adopted by the school, and re-directed to educational objectives. "Children learn quickly if only they may use the 'play way,' in which imagination is a fairy god-mother to every child, and ingenuity the master-key that opens the doors through which the children pass from one experience to another." The tendency of young children to "act out" the occupations of their elders and the dramatic incidents of adult life around them may be made the basis of dramatic procedures in school, which, besides leading the children into complete activity, have the following further advantages:
 - (1) They socialize the individual child's experiences, offering him a way to make his personal contribution to the efforts of the group.
 - (2) They entice the child to enquiry and understanding.
 - (3) They require supplementary activities in reading, number and the fundamental skills: activities which lack meaning and purpose when treated only as drill or practice exercises.
4. School learnings embrace not merely the knowledge and skills of the traditional school "subjects," but also many appreciations, attitudes, ideals, and incidental habits and abilities. They involve "the psychology of the situation" and the emotional life of the learners.
5. The school programme must provide both for instruction in the "ways of life," and for the pupil's living in school a normal life, made up of work, play, and "the business of living."
6. The teacher who is a genuine educator, rather than a mere animal-trainer, will watch carefully and patiently for the learning outcomes of social activities and experiences.
7. It is both feasible and desirable to correlate many different learning units, and to consolidate them in social studies or social activities and experiences. It matters little to the learners whether an interesting item of knowledge or experience is properly called geography, history, dramatization, or literature; the important thing to them as learners is that it is interesting, and is useful for them in the life they are living as boys and girls. The significance of right nomenclature for the thing is beyond their present power of appreciation.

For practical and theoretic discussion of these principles the teacher is referred to the references at the end of this section.

The Programme.

With the foregoing qualification in respect to the term *grade*, it may be stated that this new programme comprises the curricular materials for use in Grades I to VI, and consists of two divisions. Division I includes the *Primary Grades*—Grades I, II and III; Division II includes the *Junior Grades*—Grades IV, V and VI.

The instructional materials of this programme are grouped in two ways:

1. As *subjects*—the regular subjects of a standard-type programme.
2. As *enterprises*.

The *subjects* are as follows: Reading; Literature; Speech Training, Verse Speaking, and Choral Speech; Language, and Spelling; Writing; Arithmetic; Social Studies; Elementary Science, and Health Education; Physical Education; Art; Music.

The *enterprises* are called “Social Activities” in Division I, and “Social Experiences” in Division II.

The outline for each of these subjects includes an introduction, a statement of objectives, and in general, a suggested list of minimum attainments for Division I, and Division II.

It will be possible, therefore, for the teacher either to use the enterprise procedure, or to present the material of the outlines in a series of formal lessons. In actual practice, however, *the teacher will not find it desirable to follow exclusively either the enterprise procedure or that of formal teaching*; for these reasons:

- (1) The social need for ability to read and write, and the social demand of conformity and accuracy in language and number, make it necessary for the teacher to provide special training in these *fundamental skills*, in addition to the training brought about by way of the enterprises. In these subjects, the teacher will consult the outlines for levels of attainment and minimum requirements. In the case of Reading, especially, where progress is by definite stages, it will be necessary to keep account of the pupils' progress in the manner proposed in the outline. All teachers will find the outlines in Science, Art, and Music very instructive and helpful.
- (2) The outlines, on the other hand, are shot through with suggestions for activities and enterprises; especially in the case of Literature, Language, Social Studies, Elementary Science, Health Education, Art and Music. The main objectives in these subjects are appreciations, attitudes, and habits; for which the enterprise procedure is very effective.

Speech Training, Verse Speaking and Choral Speech will be taken with the whole school, or division; and in many one-room schools it will be expedient to treat Music, Health Education, and Physical Education in the same manner.

There is no outline in Social Studies for Division I. For this reason, every teacher of this division should attempt one or two enterprises, at least. Teachers of Division II who use the enterprises of that division may plan a three-year cycle in the Social Studies by consulting the table on page 143.

TEACHER'S REFERENCE BOOKS ON THE ACTIVITY PROGRAMME

1. *The Activities Curriculum in the Primary Grades*; Stevens—D. C. Heath & Co.
2. *Pupil Activities in the Elementary Grades*; Minor—Lippincott Co.
3. *What is the Activity Plan of Progressive Education?*; S. E. Burr—C. A. Gregory Co., Cincinnati.
4. *A Teacher's Guide Book to the Activity Programme*; Lane—Macmillan Co.
5. *Units of Work: Indian Life and the Dutch Colonial Settlement*; Keelor and Sweet—Bureau of Publications, Teachers College, Columbia University, New York.
6. *Willingly To School*; Staff of the Fox Meadow School—Round Table Press, New York.
7. *The Transitional Public School*; Mead and Orth—Macmillan Co.
8. *Educative Experiences Brought by Activity Units*; Clouser, Robinson and Neely—Lyons & Carnahan, Chicago.
9. *The Social Studies in the Primary Grades*; Storm—Lyons & Carnahan, Chicago.
10. *A First Grade at Work—A Non-Reading Curriculum*; Wright—Bureau of Publications, Teachers College, Columbia University, New York.
11. *Activities in the Public School*; Gustin and Hayes—University of North Carolina Press, Chapel Hill, N. C.
12. *The Initiation of an Activity Programme into a Public School*; Adams—Bureau of Publications, Teachers College, Columbia University, New York.

(N.B.—The foregoing books are helpful in practice. The first eight contain much material that is useful for enterprises.)

13. *The Child-Centered School*; Rugg and Shumaker—World Book Co.
14. *The Activity Programme*; A. Gordon Melvin—McClelland & Stewart, Toronto.
15. *The Activity Movement*; Hissong—Warwick & York, Baltimore.
16. *New Horizons for the Child*; Cobb—Avalon Press, Washington, D. C.
17. *The School for the Child from Two to Eight*; Forest—Ginn & Co.
18. *The Activity Movement*; Thirty-third Yearbook, Part II, of the National Society for the Study of Education—Public School Publishing Co., Bloomington, Ill.
19. *The Activity School*; Adolph Ferriere—John Day Co., New York.
20. *The Activity School—New Tendencies in Educational Method in Western Europe*; Demiashkevich—A. G. Seiler, New York.

(N.B.—Nos. 13 to 20 deal with the theory of the Activity Programme. Nos. 13, 14, 15 and 19 are very instructive. No. 20 is a critical evaluation. Teachers will also find helpful suggestions in *Primary Service*—Western Canada Institute, Calgary.)

Reading

DIVISION I

INTRODUCTION

Learning to read in the modern way is as simple and natural as learning to talk. The teacher bases her procedure on the principle that as a child learns to talk by talking, so he learns to read by reading. This principle being accepted, teaching to read resolves itself into providing the pupil with plenty of suitably graded reading material, and standing by to help him in his use of it.

The modern teacher begins by teaching the pupil to recognize in print, on the blackboard and card, eight or ten of the words used in the first few pages of the primer. She does this by associating the words with pictures; as, boy, girl, cat, dog, etc.; or with actions; as, run, play, jump. If the teacher prefer, she may begin by teaching the pupils to recognize a few simple sentences as wholes. When the children become familiar with these, they begin to distinguish the separate words of which they are composed, and quickly learn to recognize the more important and striking single words wherever they see them. As soon as the pupil knows a few words, the teacher begins arranging them for him in simple sentences, and having him read, that is, look at the sentence and tell the story, or perform the action. After the pupil has done this, he should be allowed to read his sentence orally. To say the words aloud is not necessarily reading, however; to read means to get thought. In each lesson the teacher presents a little group of new sentences made from the old words and including one or two new words. The new words should be so chosen and so placed that the child may be able to guess the meaning of the unknown word from the known context. The teacher trains him to do this; it is the first and fundamental device used by all readers young and old. Each day the pupil reviews the old words in new arrangements; each day he adds one or two new words to his stock, learning to read by reading.

TYPES OF READING ACTIVITY

1. *The Reading Lesson Proper* is the lesson of fifteen or twenty minutes, taken every morning, in which the pupils read a new story for the sake of enjoying the story. For the first month the reading is done from the blackboard; thereafter from the authorized text, which is given out at the beginning of the lesson, and collected and put away at the end of it. (Interest, and therefore reading effort is greatly improved if the texts are given out only for lessons and only the practice material and supplementary readers left in the hands of the pupils.)

The primary reading lesson is a combination of silent and oral reading. After discussing the picture, or the earlier part of the story, and reviewing the new words, the teacher asks the pupils a question, the answer to which they are to find in the first few sentences of the story. The children read silently, find the answer and give it. The teacher asks another question covering the next passage. The pupils read and answer; in this way they proceed through the story. After the pupils have read silently and answered the teacher's questions on the passage, they may, if the teacher wishes, read it aloud. It is not necessary, however, that they should read the whole lesson, or every lesson, orally. Only such passages as lend themselves to oral reading, conversation, dramatic action, or musical verse, should be read aloud.

2. *The Practice Lesson* is a five-or-ten-minute blackboard lesson taken in the afternoon. In it, the pupils practise the different skills of reading; as, word and phrase recognition, seeing words as made up of parts—phonograms and syllables; sounding and blending these parts; getting the meaning of a new word from the context; many kinds of word perception exercise; phrase, sentence and paragraph reading.

3. *Reading Seatwork*: work sheets, printed or hectographed, or blackboard reading exercises which the child reads to follow directions for construction, or art work. In these exercises new words are introduced in context, old words are reviewed and many kinds of word perception exercises practised. Fifteen to thirty minutes per day should be devoted to this activity.

4. *Free Reading*.—This is the reading of supplementary books, which the pupil does in his free time unsupervised by the teacher. It is of vital importance, for it is in this activity that the pupil really learns to read. He is shown how in the reading lesson proper; he practises reading skills in the practice lesson and seatwork exercises, but he really learns to read in the free reading period. He should have a supplementary reading book in his desk at all times and be encouraged to read it whenever he has any spare time. In addition, from fifteen to thirty minutes daily should be set aside specifi-

cally for free reading. When the pupil has finished his book, he should answer the teacher's questions about it to prove that he has read it intelligently, before being allowed to choose another book from the library. Primary pupils of average ability should read each year from three to ten suitably graded supplementary books. While the books assigned for class reading, with the teacher at hand to give instruction and help, should be well up to the grade level of difficulty, the books assigned for supplementary reading, when the child must depend entirely upon his own resources and where he is to acquire facility, range and speed, should be in difficulty a grade below the pupil's class level; that is, supplementary reading for Grade III should be on the Grade II level; that for Grade II on the Grade I level; that for Grade I on the Primer and Pre-Primer level, during the first half of the year at least.

ORGANIZATION OF DIVISION

THE STAGES IN LEARNING TO READ

In learning to read the pupil proceeds through a number of stages in each one of which there are several steps to be taken. It is important that each of these steps be taken carefully, time being allowed the learner to repeat the operation involved again and again till a reasonable amount of skill has been acquired. Again, when all the steps of the first stage have been taken, plenty of time should be allowed for the practice of reading on that level before the second stage is attempted.

Some children take the steps easily and pass from one stage to the other quickly; others must advance slowly, repeating each operation many, many times and having weeks of practice on each level before proceeding to the next. Success for each child depends upon his acquiring sufficient skill in the first operation to form a basis for beginning practice in the second. Children differ widely in the degree of practice required to give the "sufficient skill"; it follows, therefore, that they should be considered individually in the reading class, each being allowed to proceed at the speed of which he is capable. The teacher must, in any case, hear each child read individually. It takes no more of her time to hear each read a different part of the book, or even a different book. As a rule the procedure resolves itself into making three groups for reading: the one or two natural readers who leap from step to step with flying feet; the larger group of learners with average ability who go forward steadily and with moderate speed; and the one or two slow pupils who must sit awhile on each step to gather breath for the next. If the teacher under-

takes this and will wait patiently with her slow child till he is ready to move, she may, at once, save herself worry, and bring him bravely through to efficiency.

STAGE I—INTRODUCTORY 2-4 WEEKS

1. Prepare the pupil to learn to read by making sure that he knows that the printed words tell something; by making him want to find out what they tell so that he may enjoy the story, or follow instructions with the other pupils.

2. Help the pupil to acquire a minimum reading vocabulary; enough words and phrases to make a beginning in reading; say, 8 or 10 words and one or two phrases. He should be able to recognize these words when he sees them printed on the blackboard, the word card, or the work sheet. He should be able to read any sentence made up of these words. (The teacher should make as many different sentences as she can with the small stock.)

3. Teach the pupil, as he reads the sentences on the blackboard, to move his eyes from left to right along the line of print.

4. Teach him to read the printed sentence silently and then do what it tells him.

5. Teach him how to find out new words for himself: (a) to find the strange word in the sentence; (b) to guess what it is from the context.

Standard of Attainment: The pupil must be able: (a) to recognize from 15 to 20 words, 4 or 5 of which he has found out for himself from the context; (b) to read any simple sentence made up of these words; (c) to move his eye from left to right in reading; and (d) to read a word or sentence command silently and obey it.

STAGE II—LEARNING TO READ A BOOKLET PRE-PRIMER STAGE 4-6 WEEKS

6. Have pupils read a dozen or more of these two-or-three-page booklets in which the story has been invented and printed by the teacher.

7. Have them read a published pre-primer chosen from the list below. If this is not possible, the teacher may herself invent and print a 15-to-20-page pre-primer story about Jerry and Jane, making use of the words in the first 30 pages of the primer.

8. While the pre-primer is being read in class, the pupils should practise reading a variety of materials; as, blackboard sentences and stories; bulletin notices; names, phrases and

sentences attached to pictures and objects in the room; work-book sheets; leaflets, booklets and supplementary pre-primers.

9. Regularly in the practice lesson and incidentally in all reading, the teacher should build up the vocabulary, teaching, telling and helping the pupils to make out the new word from the context. Finding the known words daily in new contexts in all possible varieties of material will give the repetition needed for recall.

Standard of Attainment: The pupil should be able (a) to recognize from 50 to 70 words and from 5 to 10 phrases used in the first 30 pages of the primer; (b) by reading the sentence silently, to find the answer to the teacher's question (read and do); (c) to read 2 or 3 connected sentences, making the correct return sweep with his eyes; and (d) to note a strange word in his sentence, and gather the meaning from the context if the meaning is obvious.

PRE-PRIMERS FOR DIVISION I

The Easy Primer; Burnett—Ryerson Press.

The Easy Book; Ayer—Macmillan.

Little Book; Hardy—Wheeler.

Sally and Billy; Hardy—Wheeler.

Sally and Billy in Winter; Hardy—Wheeler.

Two Little Indians; Dickie—Dent.

The Family Playhouse; Tuttle—Ginn.

STAGE III—VOCABULARY BUILDING 12-16 WEEKS

10. Have the pupils read the authorized primer.

11. As the reading of the primer proceeds, the teacher should train the pupils in paragraph comprehension; that is, she should ask problem questions which make it necessary for the pupils to read silently 2 or 3 sentences in order to find the answer.

12. While the primer is being read, too, the teacher should make every effort to build up a useful reading vocabulary of words and phrases by the following procedures:

- (1) Short daily practices in word and phrase perception and in making out new words from the context.
- (2) Teaching the recognition and use of a few common phonogram syllables to help the pupil in making out the pronunciation of new words.
- (3) The daily use of workbook sheets, blackboard stories, bulletins and booklets to give the continual "recognition of old words in new contexts" which insures recall.

13. Build up the phrase vocabulary and begin to train the pupils to read aloud in thought groups; that is, when the

pupil has read the sentence silently and proved that he understands it, require him, in oral reading, to speak together the words which belong together. This involves the beginning of the extension of eye span.

Standard of Attainment: The pupil should be able (a) by reading a short paragraph silently, to find the answer to the teacher's question about the story; (b) to recognize from 200 to 250 words and from 20 to 40 common phrases; (c) to guess an obvious word from the context, and to use the phonograms and syllable which he knows to help him in making out the other new words he meets in his reading; and (d) to read from 3 to 10 pre-primers and easy primers from the teacher's stock and from the list given below.

SUPPLEMENTARY READERS FOR DIVISION I PRIMERS, FIRST READERS, ETC.

The Elson Basic Readers: Primer; Book I;—Gage Co.

The Work-Play Series: Peter and Peggy; Round the Year; Friendly Stories; Make and Make Believe—Macmillan Co.

The Child's Own Way Series: Wag and Puff; Surprise Stories; New Stories; Best Stories—Wheeler Co.

The Helpers Series: Helpers; Comrades; Neighbors—Newson Co.

The Science Readers: Our Pets; Trailing Our Animal Friends; Baby Animals Zoo—Heath Co.

The Children's Own Readers: Frolic and Do Funny; Friends; Playing with Pets—Ginn Co.

Real Life Primers: Bob and Baby Pony; At the Farm; At Home; Trails and Travels; New Stories—Scribner's Sons.

The Far Horizon Readers: Play Out of Doors; Happy Holidays—Dent & Sons.

The Pathways to Reading: Primer; Book I—Gage-Nelson.

The Art Readers—Gage Co.

STAGE IV—EXTENDING THE EYE-SPAN—SMOOTHNESS 12-16 WEEKS

14. Have pupils read the authorized first reader.

15. Train them to read a whole page, or section, to find the answer to a question.

16. While the reading of the first reader proceeds, begin to work for a lengthened eye-span by phrase drill; by having the pupil re-read easy and interesting material; and by having him practice reading aloud in thought groups.

17. Train the pupil not to stop at a new word met in his reading, but to read on to the end of the sentence and then

to try to find out the word from the context. Teach him, also, to recognize the remaining common phonograms and syllables and to use them in making out the pronunciation of new words.

18. Strengthen the habit of free reading in every way possible.

19. Work for the elimination of lip movement and vocalization.

Standard of Attainment: The pupil should be able (a) by reading a whole page or section silently, to find the answer to the teacher's question about the story; (b) to recognize readily from 400 to 500 words and all the common "reading" phrases; (c) to make out any common word either by inferring it from the context or by sounding and pronouncing it; (d) to read simple story material aloud in correct thought groups; and (e) to read from 3 to 10 practice readers (primers, easy first readers) and story books.

STAGE V—WORK FOR A GOOD STANDARD OF COMPREHENSION 6-8 MONTHS

20. Have the pupils read the authorized second reader.

21. While the reading of the second reader proceeds, train the pupils in sentence, paragraph and story comprehension by the following procedures:

(a) Daily silent reading to answer questions or to follow directions; to guess answers to riddles; to do "yes" and "no" exercises with the selection before them.

(b) Frequent silent reading of the whole section or story; and reporting stories found on bulletin and blackboards, and in supplementary readers.

(c) A careful survey of the first and second five-hundred-word-lists (Gates), to make sure that the pupil can recognize, and knows the meaning of at least 80 per cent. of them.

22. Give regular practice in the habit of getting a new word from the context; make a survey of the pupil's knowledge of sounds, and teach any phonograms, syllables and sounds with which he is still unfamiliar.

23. Continue work for extending the eye-span; give the pupil practice in reading aloud in longer thought groups.

24. Continue to work for the elimination of lip movement and voicing.

Standard of Attainment: The pupil should (a) have an average comprehension score of 50; that is, he should be able to answer correctly 5 out of 10 questions asked him upon any passage which he has read silently; (b) have a reading vocab-

ulary of from 800 to 1,000 words; (c) know how to attack a new word in his reading and be able to find out 80 per cent. of them for himself; (d) be able to read aloud in correct thought groups of reasonable length; and (e) enjoy reading stories, and in his free reading time, read from 3 to 10 primers, first readers and easy story books.

STAGE VI—COMPLETING THE MASTERY OF THE MECHANICS 6-8 MONTHS

25. Have pupils read the authorized third reader.

26. While the reading of the third reader proceeds, train the pupil to read silently, and answer questions, follow directions, or report the story.

27. By regular practice, train the pupil to attack a new word with confidence for both pronunciation and speed. Make a class survey of the 1,500 words of the Gates list, and teach in sentences any with which the pupils are not familiar.

28. In oral reading, work for correct groups, smoothness and natural expression.

29. In the latter part of this stage, the teacher should begin to work for a definite speed: so many words per minute with a good standard of comprehension. Speeding up the reading of easy material extends the eye-span.

Standard of Attainment: The pupil should (a) have an average comprehension score of 80 per cent. with open book; (b) have a reading vocabulary of from 1,300 to 1,500 words; (c) attack new words with confidence, speed and general success; (d) read easy story material silently at a rate of 150 words per minute with a good standard of comprehension; (e) read aloud smoothly in correct thought groups; (f) have the habit of reading in his free time. From 5 to 15 story books on the second reader level of difficulty should be read during this stage.

Since comprehension in reading depends to a great extent upon speed in reading, tests for these will often be given at the same time. However, the children's rate of reading may be definitely checked, say, every two months, while comprehension tests will be given almost every day.

Comprehension tests may be given with *books open*. Then the standard of comprehension must be high, from 80% to 100%. The tests may also be given with *books closed*, and, in this case, the standard requirement is not so high, since memory is being tested also. It is advisable to use both forms of tests.

Examples of tests for speed and comprehension are given below. When tests are being given, explain carefully to the class the method of procedure.

COMPREHENSION TESTS

A. *Questions* (From *Naughty Baby Bruin*, Book II, p. 68).

(The teacher directs the class to answer orally the following questions, which will be on the board or on slips of paper.)

1. Why did Mother Bruin want Baby Bruin to stay in the den?
2. What did the children bring for the bears?
3. What did Mother Bear do when her baby went into the pool?
4. How many times did Baby Bear go into the water?
5. Where was Baby Bear at the end of the story?

B. *Yes and No* (From *Mrs. Tabby Gray*, Book II, p. 58).

(The exercise will be explained to the class. Have the children number lines on their work-books to correspond to the number of questions on the board. They will write *Yes* or *No* as required.)

1. Did the kittens live in a barn?
2. Had Mrs. Tabby Gray two black kittens?
3. Did Mrs. Tabby Gray carry the white kitten first?
4. Did Mrs. Tabby Gray put her three kittens into the trunk?
5. Did Mrs. Tabby Gray want the milk that the lady brought?
6. Is a straw bed in the barn a better place for kittens than a soft blanket in a trunk?

(This type of test may be combined with a speed test. The class may do the exercise *after* the story has been read.)

C. *Multiple Choice* (From *The Miller, His Son, and Their Donkey*, Book III, p. 7).

Choose the right words to finish these sentences:

1. First, the miller and his son met—
a group of men.
a group of women.
some women and children.
2. When they met the group of men, these men scolded because—
the boy was riding the donkey.
the boy was walking.
the old man was riding the donkey.
3. At last, the miller and his son tried to—
pull the donkey over the bridge.
carry the donkey on their backs.
carry the donkey, which they had tied to a pole.

4. By trying to please every body the man and his son pleased—

themselves.

the women and children.

nobody at all.

(This test could also be used in conjunction with a speed test, choice of phrase to be made after the reading.)

D. *Finishing the Sentence* (*The Golden Rule*, Book III, p. 186.)

Find the right words to finish the sentences:

1. An Indian came to the settler's cabin.....

2. When the settler spoke rudely to him, the Indian turned away and walked.....

3. When the settler was lost in the forest, he was delighted to come upon.....

4. The settler ate a good supper, for he had not eaten.....

5. While the Indian slept on the floor in a blanket, the settler slept.....

6. The settler said to the Indian, "You have surely returned....."

Book III pupils may frequently be required to write the necessary material to answer the test. Occasionally, Book II pupils may do so, when the material is very simple.

SPEED TESTS

1. Give typewritten or hectographed sheets of a story. Have the number of words checked. Give a signal, "Turn and read". Each child raises his hand when he has finished. The teacher checks the time for each pupil, and the rate is calculated.

2. Use a story from the reader, *e.g.*, "The Boys of India", Book III. Have class open books on page 217. Tell them the name of the story and show them that it begins at the bottom of the following page. Give signal, "Turn page and read". Check as before.

3. Use a story from the reader, *e.g.*, "Alfred the Great". Have class open book on page 199. Explain that they are to read the story on page 200. Also tell them that you are going to say "Mark" a couple of times during the reading. Each time you say it, they must put a faint line under the word that they are reading. The word "Mark" is said at the end of *one* or *two* or *three* minutes. Since the teacher will have the story in her own book checked for the number of words, each child's speed can easily be discovered from the marks on his own

book. Have marks removed after test is complete. (To the teacher: Count the number of words in the story, putting the number at the beginning of each line; thus,

- (8) Many years ago, when this country was new,
(17) there were only a few settlements of white people.
(26) But there were many Indians who hunted in the
(33) forests. The Indians were nearly always friendly
(41) toward the white people and helped them in
(43) many ways.

Then, since the number of words is known, and the number of minutes it has taken a child to read those words, his rate of reading is easily obtained.

If the child's rate is slow, give plenty of free, easy reading to increase speed. Couple comprehension tests of various kinds with this reading.

DIVISION II

INTRODUCTION

In Division I, the aim in reading was to help the pupil master the mechanics of the subject; in Division II, the aim is to train him to use his ability to read as a tool with which to secure pleasure and information. As has already been pointed out, boys and girls like to find out things for themselves; and for this high adventure of finding out things, reading is a most important equipment.

Indeed, in Division II, finding out things is more than an adventure; it is a business. The pupils now begin to study several new subjects in which minimum requirements are laid down and tests given. These requirements presuppose that the pupil is able to read with reasonably good speed and comprehension; he must, therefore, before entering upon the Division II course, be brought up to standard in these two essentials.

In entertaining himself and in reading for information, the young reader makes use of different types of material. Some passages may be passed over quickly; others require careful reading. Boys and girls should learn to read at four different speeds according to the value of the material. They should learn to skim when searching out information; to read a story rapidly; to read informational material more slowly and carefully, re-reading it if necessary; and to read aloud in such a way as to give pleasure to the listeners.

The efficient reader reads for a purpose and becomes more efficient the more definite the purpose is made. Boys and girls should be taught how to read for different purposes. Having learned in Division I to read to find the right answers to questions, and to follow single direction, they are now ready to learn to read for the following purposes:

- (1) To gather the general significance of a passage.
 - (2) To predict the outcome of a passage read.
 - (3) To collect facts for use in making a report.
 - (4) To follow precise directions.
 - (5) To entertain an audience by reading aloud.
-

TYPES OF READING ACTIVITY

The type lessons which follow are not prescriptive. They are merely formal outlines of the different steps which make up a complete exercise in silent, oral or free reading. The teacher will often wish to devote a whole lesson to one step, to stress a particular phase, or to change the order of the steps according to the interest, or value, of the reading matter and according to the needs and abilities of the pupils. Each teacher should work out his own lesson procedure, checking it by the outline to make sure that, in one way or another, all the different phases of the reading lesson are covered.

I—The Silent Reading Lesson.

Purpose:

To give the pupil (1) pleasure and information, and (2) practice in reading at particular speeds, and for particular purposes.

Steps:

1. The setting: The teacher introduces the passage, connecting it with the pupils' previous knowledge or experience, and making necessary explanations as to sense, incidents, and vocabulary.
2. The problem: The teacher assigns a purpose for the reading.
3. The time limit: The teacher assigns a certain number of minutes for the reading of the passage. The time may be calculated by dividing the number of words in the passage by the standard rate of speed for the grade.
4. The silent reading.
5. The record: When the reading time is up, the pupils make the record suitable to the purpose assigned as described below, making it with books open if comprehension is to be tested, and closed if memory is to be tested.

6. The oral discussion: In a brief discussion the pupils ask questions, or express opinions about the passage, and the teacher verifies the degree to which the purpose sought has been fulfilled.

II—The Oral Reading Lesson.

Purpose:

To train the pupils to read aloud with such correct phrasing, clear enunciation, and natural expression as will enable the audience to enjoy the story or poem being read.

Steps:

1. The setting: The teacher introduces the selection, arousing the pupils' interest in it, making necessary explanations, and teaching the pronunciation of any unusual words.
2. The problem question: The question should focus the pupils' attention on the literary qualities of the selection, should relate to its feeling and thought, should point out its purpose, or call attention to its general effect.
3. The silent reading: The pupils read the selection, or part of it, seeking the answer to the problem question.
4. The oral discussion: Teacher and pupils discuss the selection, deciding what the general literary effect is; e.g., serious, gay, mysterious, solemn, exciting, sad, peaceful. It is a good plan to have the general feeling expressed in a single word which the readers may keep in mind as they read. Special points should be noted also; for example, where a feeling is to be expressed, an important thought is to be emphasized, the details of a picture are to be brought out, or a beautiful phrase or sentence is to be spoken carefully. The rhythm in poetry, and special passages for group work, enunciation and expression should be practised before the general reading begins. The class should decide upon one or two important effects which the readers will try to give and, if possible, make suggestions as to how the desired effect may be produced.
5. The oral reading: Each pupil in turn now reads aloud to the class, which in the formal reading lesson provides the audience. In Division II the passage read should be long enough to allow the reader to overcome any initial hesitancy and make his interpretation clear, ordinarily two or three paragraphs. The class, following the discussion suggested above, is prepared to be an interested audience. Members should close their books and give courteous attention to the reader, enjoying the selection and deciding whether or not the effect agreed upon is being given.

6. The comment: The reading should be judged according to the effect produced. Did the reader do what the class had decided should be done, or not? Did he give a reasonable interpretation? Suggestions for improvement, or for some other possible interpretation may be made and a second attempt undertaken, if time permits.

III—Free Reading.

Free reading is done by the pupil in his leisure time, unsupervised by the teacher. It is important that the authorized readers should be kept in the book-case to be given out only for the formal silent and oral reading lessons; it is equally important that each pupil should have in his desk at all times a supplementary reading book which he is encouraged to read in his spare time. As in Division II, the supplementary reading material should be on a level of difficulty one grade, at least, below that of the authorized reader used by the pupil for the first half of the year. The free reading is an important factor in the pupils' development. It is in this supplementary reading that the pupil develops speed and comprehension, and builds up the large store of general information which is essential to his progress in all subjects.

The supplementary reading books for the Division should be arranged together and a card of questions upon each book prepared by the teacher. A librarian should be appointed and an hour for giving out books named. When a pupil has read a certain book, he should take the card of questions upon it to his seat and answer the questions in writing. His answers being checked and found satisfactory, he should be credited with having read the book and allowed to choose another. It is stimulating to the pupils to keep the supplementary reading score on a wall chart where each pupil may see the number of books he has read increasing from month to month.

THE ORGANIZATION OF THE DIVISION

In Division II, reading ceases to be a progressional, step-by-step subject and becomes an expansional one. The pupil requires more and more practice in doing certain specific things; the order in which the things are done is not important. If all the pupils entering the Division were equally well prepared, the whole group might be taken together for reading. The children who come up from Division I are, however, seldom equally well prepared. Despite careful training, some members of the group will still be found to be below standard in speed and comprehension in silent reading. In most schools, therefore, it will be necessary to organize the Division in two classes for reading: a junior class where the pupils are practising remedial exercises and being brought up to standard in speed and comprehension, or in oral reading; a senior class in which the members are proceeding with the reading requirements of the Division. Good readers should, of course, pass directly from Division I into the senior class of Division II.

THE JUNIOR CLASS

Silent Reading.

This group is made up of boys and girls who, because of some fault in technique, fall below standard. Ordinarily a few months of remedial instruction and concentrated practice will enable them to fulfil the requirements. Each pupil should be transferred to the senior class as soon as he has made standard scores three times in succession.

To be effective, remedial work in reading must be specific. The teacher should test till he discovers the particular fault or faults of technique which form a stumbling block in the case of each pupil, and then give the remedial exercises designed to correct that particular weakness. Boys and girls in Division II are old enough to have their faults and the corrective exercises explained to them so that they can help themselves by private practice.

The commonest fault in silent reading is poor word recognition; this shortens the eye-span, and prevents the reader from seeing a word group and grasping its meaning. It produces a slow rate and poor comprehension. As such readers take a long time over their reading and get comparatively little out of it, they are not likely to read much. Reading a great deal of easy story material, and answering questions set to test the comprehension of it, is the best corrective for this fault.

Reading to develop speed with good comprehension is the special kind of training required in the junior class. The silent reading lessons should be of this type. Suitable selections are those in which—

- (1) The words, thought, and style are well within the range of the pupil.
- (2) The subject matter is familiar and interesting, even exciting.
- (3) There is an obvious thread of story running throughout.
- (4) The details are comparatively unimportant.

The type of record required for this kind of reading is the objective test. A set of questions designed to test the pupil's understanding, rather than his memory, of the passage, should be prepared. The questions should be of the objective type, requiring as little writing as possible on the part of the pupil. They may be written on the blackboard, or distributed on hectographed sheets; it is an excellent reading exercise for the senior class pupils to prepare and write out sets of questions for the members of the junior class.

Standards of Attainment:

The pupil should reach the following standards:

1. An average comprehension score of 80% in reading story material of suitable difficulty.

2. A reading rate for suitable story material of 150 words per minute.
3. A minimum recognition vocabulary of 2,000 words.
4. The habit of taking strange words in his stride; reading to the end of the sentence to get the meaning from the context, and sounding to get the correct pronunciation.
5. A supplementary reading score of not less than 5 books.
6. Ability to read and answer questions on the passage correctly; to read and follow directions accurately.

Informal tests for speed, comprehension, and vocabulary are simple and, if an average of three or more is taken, quite satisfactory. In testing speed and comprehension, the teacher should choose a selection which is new to the pupils and well within their range. Explain carefully what they are to do and, all being ready, give the command to begin and to "mark the word". Each pupil then marks with his pencil the word upon which his eye rests, and reads on. The teacher with his eye on his watch waits for exactly one minute and again gives the command to mark the word. Again each pupil marks the word upon which his eye rests. He then stops reading.

The books are now closed and a list of ten questions of the objective type, carefully prepared to test the pupil's understanding of the passage, is distributed. These questions are answered, the answers marked, and the scores recorded in percentages; these percentages form the comprehension scores. The pupils then re-open their books and each counts the words between his first and second pencil mark. This gives him the number of words read per minute; this number is his speed score. As suggested above, if three or more such tests are given and the marks averaged, the resulting scores may be regarded as sufficiently accurate for all practical purposes.

Oral Reading.

Pupils who are below standard in silent reading are usually, though not always, poor oral readers. As a rule, improvement in the silent reading technique is soon reflected in the oral, and is often sufficient to make the latter satisfactory. Other factors causing poor oral reading are self-consciousness, the conviction of inability to read aloud well, the nervous reaction to criticism in public. These difficulties as well as those caused by faults of technique are best overcome by practice in private. All members of the junior class should read orally to the teacher alone till they have overcome their special faults.

When the group is small enough and the reading matter suitable, the junior and senior classes should be taken together in oral reading, the juniors participating in the setting and discussion of the lesson and listening to the reading of the seniors. When this is over, the class should be dismissed; and the juniors should come, in turn, to read to the teacher.

Standard of Attainment:

The pupil should be able to read aloud in correct thought groups; that is, in reading, he does not pronounce one word at a time, but puts together in one group the words which belong together. This argues an understanding of what is being read and is the basic element of good oral reading. The teacher's judgment is usually a sufficient standard upon this point; for further guidance every teacher should have a copy of the standard oral reading test: *Gray's Oral Reading Paragraphs*, University of Chicago Press.

THE SENIOR CLASS

Silent Reading.

This group, being made up of boys and girls who have reached standard in speed of reading and in the comprehension of story material, is ready to be trained to read for informational and study purposes. The silent reading lesson period with the senior class should be devoted to training the pupils to read at different speeds and for different purposes; the social studies and the free reading period will also provide practice in such reading.

In rapid reading, pupils of this division should work up to 250 words a minute; in reading for study they should work up to 175 words a minute. Skimming is used in searching through books and magazines for information about any subject being studied. The newspaper is the best material for class practice in skimming, but good exercise may be obtained by having the class turn to a selection in the readers and find the answer to a question as to some detail. Training in rapid reading with a good standard of comprehension has been described above, and that for careful reading will be outlined below in the paragraphs devoted to reading for different purposes.

Informational reading is most often done for one or other of four purposes. Boys and girls in Division II should be taught to read for these purposes and to make the type of suitable in each case.

- I. *Reading to gather the general significance of the passage* is the casual kind of reading commonly used in reading newspapers and light fiction. It is a waste of time to do this kind of reading slowly; it should be done at the reader's most rapid rate. Suitable selections are those in which—

- (1) The thread of action or the general idea is the important thing, the details being comparatively unimportant.
- (2) The subject is new to the reader, or the thought is difficult to grasp and a second reading is contemplated.

The type of record required for this form of reading is a statement, in sentence or paragraph form, of the general impression received; it should be the answer to a problem question.

II. *Reading to predict the outcome of the passage read* requires a grasp of the general significance and, in addition, some analysis of it. This kind of reading should be done rapidly, but with concentration. Suitable selections are those in which—

- (1) The thought is not carried out to its logical conclusion, but suggests a further development of the action, a problem to be solved or a conclusion to be drawn.
- (2) The material suggests further reading, or some activity which might be worked out.

The type of record required here is again a statement in sentence or paragraph form, which gives an answer to the problem question.

III. *Reading to collect important facts* requires the breaking up of the passage and the recognition of the details in it which are significant. This kind of reading should be done at the speed for careful reading. Suitable selections are those in which—

- (1) The facts are worth remembering either for practical use, or for use in working out an assignment or activity.
- (2) The facts increase the pupil's store of general information.
- (3) The facts lead up to a conclusion or generalization which the pupil is able to make.

For reading to collect important facts, two or even three readings may be needed. The type of record required is the *Outline of Principal Ideas*. Principal ideas should be designated by capital letters; as,

A..... B..... C.....

Learning to make an outline of principal ideas is preliminary to learning to make a summary, which involves the selection and arrangement of principal and subordinate ideas.

IV. *Reading to understand precise directions.*

Pupils in Division I have learned to "read and follow directions"; that is, to read one direction and follow it, read a second and follow it, and so forth. In Division II, boys and girls should learn to read a series of precise directions, and having understood their purport, to carry out the instructions intelligently and accurately. This kind of reading requires concentration; it should be done at careful reading speed and usually with two readings, one to gather the general

significance and the second to note the details. Suitable selections are those which—

- (1) Give precise directions for doing or for making something.
- (2) Describe accurately something done or made; e.g., the record of travels in Geography; the order of events in History; the steps in a logical procedure as, the explanation of a scientific fact; the development or construction of anything.

The type of record required is an *Outline of Details*.

Details should be designated by small letters; as,
a..... b..... c.....

Standards of Attainment:

The pupil should have reached the following standards:

1. An average comprehension score of 80% for story material; of 70% for informational material.
2. A reading rate of 250 words per minute for story material; and of 200 for easy informational material.
3. A recognition vocabulary of 5,000 words.
4. The habit of reading at different speeds according to the value or interest of the material.
5. The habit of reading with a purpose in mind, and of fulfilling the purpose before laying the book away.

Oral Reading.

Reading aloud is usually for the purpose of entertaining an audience. Having learned how to read in Division I, boys and girls in the senior class of Division II should be practising oral reading as an art. The best oral reading is quiet, simple, and natural, the charm lying in the pleasantly pitched and varied voice, the careful enunciation, and the simplicity and naturalness of the expression. There is no reason why boys and girls should not read beautifully anything that they understand and enjoy; interested and intelligent practice will, in a large majority of cases, enable them to do so.

For effective practice an audience is essential. If properly coached, the class or group makes the very best kind of audience; for having taken part in the discussion, the members are interested and critical; and being about to take part themselves, they are sympathetic. In addition to the oral practice lessons, every opportunity for oral reading practice which the school affords should be made use of; the morning or afternoon reading of the class story book; the Friday afternoon programme; reading aloud to the primary grades, and to groups of Division II pupils who are busy with handwork. The watchful teacher will find many occasions to call upon his “good readers”.

Good results in oral reading can be obtained only when the selection lends itself to being read aloud. Suitable selections are those having one or more of the following features:

- (1) A good deal of conversation.
- (2) Plenty of action.
- (3) Dramatic qualities.
- (4) Fine musical effects which appeal to the ear as in poetry or rhythmic prose.
- (5) Descriptive effects which appeal to the eye.

The Standard of Attainment.

The pupil should have the ability to read aloud in correct thought groups, with a pleasing voice, clear enunciation, and natural expression, any selection of suitable character and difficulty.

READING TESTS TO SECURE CHECK SCORES IN SPEED AND COMPREHENSION

TESTS FOR CLASS

These three tests are to be given to all pupils in the junior reading class on the Monday, the Wednesday and the Friday of the first week in December. In order that the scores should be valid it is essential that the test selection should be read by the pupils for the first time. The teacher should not have allowed the pupils of the class to have the books in their desks or to take them home at any time during the Autumn term. The teacher should, however, have given silent reading practice lessons of this type—reading in a set time, followed by answering fact questions of the objective test type—not less than three times weekly during the three preceding months. All these practice lessons should be on selections other than the test selections herein named.

The test should be given under test conditions; that is, the teacher should have a book for each pupil and should have prepared a copy of the test questions for each pupil; the books should be given out and remain closed on the desks while the teacher explains clearly what is to be done; when the room is quiet, the pupils are asked to open the books at the proper page and to fix their eyes on the teacher; the teacher gives no setting, no problem question, but merely reminds the pupils quietly to read as rapidly as they can with good comprehension. Marking the time on his watch, he tells the pupils to begin reading. When the given time is up, the pupils are asked to close their books. Promptness in doing this is essential. The question papers are then given out and the pupils encircle the correct words. No set time is assigned for this, but pupils should not delay unduly nor be allowed to go over their answers several times.

When the answer papers have been marked, the teacher should list the names of the pupils taking the test, and in column "A", after each name, set down the number of correct

answers given by that pupil. The results of the second and third test should be similarly set down in column "B" and column "C". In the last column the teacher should enter the average percentage made by each pupil.

TEST "A".

Selection: *Peter Johnson's Boots*, Book IV, page 10.

Time for reading: 4 minutes (150 words per minute).

Test Questions:

Draw a circle around the right word or group of words:

1. Peter Johnson lived in (England, Canada, Sweden, Germany, Alaska).
2. When Peter started out for the city he took (four horses, two dollars, seven hens, ten silver coins, five pigs).
3. When Peter traded boots the first time he gave the other man his boots and (five cats, a dollar, a belt, a pair of socks, three dollars).
4. Peter did not like the new boots because (they were too short, the toes were too square, they hurt his feet very much, they were not nice-looking, they were too small).
5. He traded the boots a second time. This time his new boots were (worse than the others, bigger than the others, too high, just right, too old).
6. When Peter traded shoes the last time he got a pair of shoes that were (worn out, much too big, a little too tight, too pointed at the toes, just right).
7. Each time that Peter traded shoes he gave the other men some money. Altogether he gave the other man (eight silver coins, four dollars, fifty cents, five dollars and fifty cents).
8. When he went home he (sat down on a chair, walked up and down the room, showed his shoes to his wife, asked his wife whether she liked the shoes, asked his wife for some supper).
9. Peter's wife told him that his shoes were (his own old shoes, too short, very nice, too old, square at the toes).
10. Peter's name was (on the sole, on the heel, on the toe, on the side, inside the top of one of the boots).

TEST "B".

Selection: *King John and the Abbot*, Book IV, page 166.

Time for reading: 9 minutes.

Test Questions:

Draw a circle around the right word or group of words:

1. The King was (happy, angry, smiling) when he spoke to the Abbot who was standing by him.

2. The King thought that the Abbot had (too little, plenty, too much, enough, not enough) wealth.
3. If the Abbot were not able to answer the three questions the King would order that he be (shot, beheaded, rewarded, plundered, whipped).
4. The King allowed the Abbot (three weeks, one day, one hour, twelve days, six months) to consider the answers.
5. The Shepherd was the Abbot's (brother, half-brother, uncle, cousin, father).
6. The Shepherd (scorned, hated, helped, loved, considered) the Abbot.
7. The Shepherd looked very (unlike, like, near, queerly) the Abbot.
8. The Shepherd answered the questions before the King (poorly, badly, fairly, wisely, greedily).
9. The King offered to give the Shepherd a (bird, sheep, hen, reward, lunch).
10. The Shepherd did not want to be an Abbot, but the King granted his (crown, honour, duty, pardon, coffee) to the Abbot anyway.

TEST "C".

Selection: *The Bell of Atri*, Book IV, page 224.

Time for reading: 10 minutes.

Test Questions:

Draw a circle around the right words or group of words:

1. The bell was hung (in case of fire, to call a meeting, in case of robbers, to tell of an injustice, to tell of someone's death).
2. The Knight lived in a (palace, hut, house, castle, mansion).
3. The Knight was renowned for his (goodness, strength, wealth, height, bravery).
4. The Knight wanted more (gold, food, flowers, farms, horses).
5. He sold (two, ten, forty, ninety-nine, one hundred) of his horses.
6. He drove the poor animal out of the (house, field, stable, garage, shed).
7. In the spring the old horse came to the (forest, field, farm, market-place, parade-ground).
8. The (Knight, horse, dog, cat, child) rang the bell.
9. He did it by gnawing at the (handle, stem, trunk, vine, rope) which twined round the rope.
10. The Knight made the old horse (sad, rich, greedy, remorseful, comfortable) for the rest of his life.

TESTS FOR THE SENIOR CLASS

The three following tests are to be given to all the pupils of the senior reading class on the Monday, Wednesday and Friday of the first full week of June. The tests should be given under the same conditions and in the same way as those described above for the junior class. Reports of the same kind as those suggested for the junior class should be made out for each of the pupils in the senior class.

TEST "A".

Selection: *Totem Poles*, Book V, page 115.

Time for reading: 7 minutes.

Test Questions:

Draw a circle around the right word or group of words:

1. Totem poles are found in (Nova Scotia, British Columbia, Saskatchewan, United States, Alberta).
2. The poles are carved by (Eskimos, Chinese, white men, Indians, Negroes).
3. The age of the totem pole is about (a thousand, fifty, ten, two hundred) years.
4. Before reading and writing was known, men conveyed their ideas by (signs, telephone, letters, books, telegraph).
5. The sign of a locksmith was a large (door, bottle, lion, flower, key).
6. The Indians became wealthy when the white men came to trade for (gold, fish, totem poles, fur, land).
7. The work on the totem pole was done by the dead man's (relatives, sons, friends, brothers, cousins).
8. When the totem pole was finished the natives had a (dance, feast, rest, speech, funeral).
9. The totem pole was planted in front of the (grave, residence, village, garden) of the dead man.
10. Only imitation totem poles are sold now, and these are sold to (natives, friends, strangers, tourists, Indians).

TEST "B".

Selection: *The Boy Henry Kelsey*, Book V, page 152.

Time for reading: 8 minutes.

Test Questions:

Draw a circle around the right word, or group of words:

1. When the story opens, Henry Kelsey lived (at Churchill, on the prairies, at Fort Nelson, at Three Rivers, in England).
2. The people at the fort were in full uniform because (the ships were coming, the Indians were coming, their friends were arriving, the Eskimos landed, the Governor approached).
3. Henry Kelsey wished that he might go (to England, to the fort, to his parents, to the Far East, to the far north country).

4. The arrival of the yearly ship meant little to him because it brought (many relatives, no money, many trinkets, no letters, much work).
5. Henry Kelsey went across the barren lands (cautiously, with fear, carefully, quietly).
6. Henry knew (Mackenzie, Prince Rupert, Samuel Hearne, Radisson, Father Lacombe).
7. The northern Indians were (very kind, not courteous, often frightened, very truthful, very unfriendly).
8. Kelsey was the first Hudson's Bay Company employee to (make an inland journey, travel over seas, return from England, trade with the French, cross Canada).
9. They were very often (tired, hungry, happy, sad, frightened) on their western journey.
10. Kelsey was made (captain, judge, examiner, Governor, officer) of York Factory.

TEST "C".

Selection: *Robinson Crusoe and Friday*, Book V, page 262.

Time for reading: 9 minutes.

Draw a circle around the right word, or group of words:

1. The number of savages who landed on the island was (five, four, twenty, thirty, less than five).
2. Crusoe observed the movements of the savages by means of a (magnifying glass, the naked eye, a telescope, a spy-glass, a compass).
3. The savages had already dragged from the boat (three, four, two, several, ten) victims.
4. The savages who followed the escaped man swam the creek (quickly, slowly, faster than he, in twice the length of time, before he did).
5. Crusoe (shot both pursuers, knocked one down with a club, shot one with bow and arrow, knocked one down with the stock of his gun, knocked both down with the stock of his gun).
6. Crusoe invited the savage to come to him by (speaking to him in his own language, making signs to him, going towards him, kissing the ground before him, kneeling down beside him).
7. The voice of the savage was the first one which Crusoe had heard for (two years, less than twenty-five years, more than twenty-five years, less than a year, that month).
8. The savage cut off the hand of one of his pursuers with a knife, club, hatchet, sword, tomahawk).
9. Crusoe sent him to sleep (on a comfortable bed, on a bed of rushes, on a bed of rice straw covered by a blanket, on a wooden bench, on a bunk).
10. Crusoe called the poor savage (friend, master, Friday, Harry, chief).

JUNIOR VOCABULARY TEST—"A"

The following vocabulary test is available in two forms, the first of which is given here. Additional forms are being prepared. These may be obtained from the Department of Psychology, the University of Alberta.

Write your name plainly.....Grade.....
 School..... Post Office.....
 Birthday.....Age Last Birthday.....Sex.....
 Country of Birth.....Language Spoken at Home.....
 Occupation of Father.....

Directions:

Look at the first word in line "A". Find another word in the line that means the same or almost the same. It is "quick", and its number is (3). So (3) has been written in the space at the end of the line. Look at "B". The correct answer (2) has already been written in. Now do the same for "C". What is the correct answer? You are to do the same with all the other lines below. You have 30 minutes to do as many as you can.

- A. RAPID: (1) warm, (2) moist, (3) quick, (4) near,
 (5) now 3...
- B. HEAD: (1) doorway, (2) part of body, (3) speed,
 (4) hat, (5) book 2...
- C. CATTLE: (1) barn, (2) farmer, (3) stove, (4) cows,
 (5) car
1. BEGIN: (1) do, (2) start, (3) fail, (4) end,
 (5) practice
2. MORNING: (1) twilight, (2) forenoon, (3) sorrow,
 (4) farewell, (5) afternoon
3. VISIT: (1) enjoy, (2) stay, (3) call on, (4) call for,
 (5) love
4. WISH: (1) decide, (2) pity, (3) shrivel, (4) see,
 (5) want
5. PUT: (1) strike, (2) look at, (3) ponder,
 (4) meddle, (5) place
6. PULL: (1) draw, (2) push, (3) fetch, (4) break,
 (5) tie
7. ENEMY: (1) hatred, (2) foe, (3) danger,
 (4) sword, (5) fire
8. PAIR: (1) fruit, (2) knife, (3) flame, (4) gloves,
 (5) two
9. VALUE: (1) sleep, (2) valve, (3) house, (4) money,
 (5) worth
10. SUPPLY: (1) provide, (2) bend, (3) hope for,
 (4) light, (5) injure
11. HOLLOW: (1) low, (2) filled, (3) tangled,
 (4) thirsty, (5) empty
12. HUGE: (1) hidden, (2) dangerous, (3) stolen,
 (4) dirty, (5) great
13. DEPART: (1) go away, (2) prepare, (3) take,
 (4) overlook, (5) hunt for

14. SWIFT: (1) light, (2) quick, (3) brown, (4) cloudy,
 (5) slow
15. DIFFICULT: (1) hard, (2) easy, (3) necessary,
 (4) told, (5) idle
16. HIT: (1) strike, (2) help, (3) give, (4) hurt,
 (5) close
17. OCCUR: (1) happen, (2) occupy, (3) ride,
 (4) repeat, (5) help
18. INSTANT: (1) wayside, (2) moment, (3) drink,
 (4) start, (5) instruction
19. PEER: (1) teacher, (2) equal, (3) war, (4) wharf,
 (5) umpire
20. WICKED: (1) sinful, (2) eager, (3) playful,
 (4) innocent, (5) famous
21. WARRIOR: (1) saddle, (2) fight, (3) soldier,
 (4) warning, (5) bravery
22. PECULIAR: (1) strange, (2) dank, (3) scared,
 (4) thankful, (5) costly
23. VEX: (1) hurt, (2) annoy, (3) assist, (4) please,
 (5) turn
24. INSTRUCT: (1) learn, (2) build, (3) strengthen,
 (4) teach, (5) reside
25. PHYSICIAN: (1) doctor, (2) portion, (3) berry,
 (4) medicine, (5) theory
26. SUBDUE: (1) undercut, (2) frighten, (3) repeat,
 (4) assist, (5) conquer
27. SNATCH: (1) shut, (2) latch, (3) scare, (4) strike,
 (5) grab
28. SLENDER: (1) slim, (2) cruel, (3) slimy,
 (4) sweet, (5) thick
29. ENCOUNTER: (1) meet, (2) persecute, (3) say,
 (4) number, (5) encourage
30. SWARM: (1) cluster, (2) trio, (3) swat, (4) sill,
 (5) chimney
31. SERPENT: (1) circle, (2) whip, (3) snake,
 (4) lizard, (5) poison
32. HURL: (1) hurt, (2) trip, (3) throw, (4) quarrel,
 (5) require
33. INTERIOR: (1) purse, (2) pulpit, (3) inside,
 (4) show, (5) fish
34. INFINITE: (1) shrewd, (2) jovial, (3) black,
 (4) endless, (5) difficult
35. PLUME: (1) strip, (2) crew, (3) feather,
 (4) plumb line, (5) dial
36. INDUCE: (1) duplicate, (2) write, (3) persuade,
 (4) inhabit, (5) patch
37. VAN: (1) rear, (2) plant, (3) vase, (4) front,
 (5) reader
38. DISPERSE: (1) destroy, (2) scatter, (3) advise,
 (4) excuse, (5) insert
39. STUPID: (1) dull, (2) injured, (3) lazy,
 (4) complete, (5) sleepy

40. SUBSTANTIAL: (1) solid, (2) purple, (3) gigantic,
(4) correct, (5) civil
41. HOMELY: (1) plain, (2) controlled, (3) pretty,
(4) mature, (5) picturesque
42. HUE: (1) gross, (2) misery, (3) copper, (4) melody,
(5) colour
43. IMPLEMENT: (1) tool, (2) impediment,
(3) intruder, (4) game, (5) necklace
44. OBSCURE: (1) oblique, (2) intimate, (3) dark,
(4) secure, (5) silent
45. PLENTIFUL: (1) excellent, (2) painful,
(3) ordinary, (4) abundant, (5) excessive
46. TROPHY: (1) scarf, (2) prize, (3) trouble,
(4) antelope, (5) vigour
47. IMPLORE: (1) deplore, (2) beg, (3) own, (4) upset,
(5) pinch
48. DEPOT: (1) placard, (2) deposit, (3) station,
(4) race, (5) revolver
49. INEVITABLE: (1) ridiculous, (2) separate,
(3) fatal, (4) eventful, (5) sure
50. STURDY: (1) stylish, (2) hardy, (3) tranquil,
(4) stubborn, (5) bloody
51. HOARD: (1) bodice, (2) store, (3) gesture,
(4) dungeon, (5) joint
52. HYPOCRITE: (1) insect, (2) iceberg,
(3) engineer, (4) pretender, (5) minuet
53. IGNOBLE: (1) middle, (2) ignorant,
(3) dishonourable, (4) wise, (5) thirsty
54. INDIGNANT: (1) black, (2) insulting,
(3) angry, (4) well known, (5) native
55. ECSTASY: (1) model, (2) rapture, (3) fantasy,
(4) expert, (5) eclipse
56. TART: (1) image, (2) small pie, (3) tartar,
(4) truant, (5) sting
57. VANQUISH: (1) behead, (2) conquer, (3) vanish,
(4) subject, (5) recover
58. POTENT: (1) sacred, (2) powerful, (3) tentative,
(4) young, (5) fearful
59. PRANK: (1) joke, (2) trinket, (3) tall tree,
(4) sentinel, (5) lumber
60. PULSATE: (1) breathe, (2) leave, (3) beat,
(4) climb, (5) escape
61. HOIST: (1) horrify, (2) lift, (3) love, (4) mingle,
(5) nudge
62. UTILITY: (1) minstrel, (2) usefulness,
(3) opposite, (4) usury, (5) possession
63. IMPAIR: (1) omit, (2) improve, (3) damage,
(4) ponder, (5) deride
64. IMPARTIAL: (1) important, (2) native,
(3) omnivorous, (4) populous, (5) fair
65. NUPTIALS: (1) nuncio, (2) pinnacle, (3) wedding,
(4) measles, (5) prudence

66. INTEGRITY: (1) interim, (2) lesson, (3) honesty,
 (4) liability, (5) novel
67. VISAGE: (1) visibility, (2) face, (3) necktie,
 (4) persistence, (5) mirage
68. INSURRECTION: (1) recklessness, (2) rebellion,
 (3) insertion, (4) slander, (5) titan
69. TRUDGE: (1) sledge, (2) tobacco, (3) labour,
 (4) drudge, (5) walk
70. TURBULENT: (1) watery, (2) disturbed,
 (3) torpid, (4) set, (5) shining
71. HURRICANE: (1) storm, (2) hurry,
 (3) sacrilege, (4) haste, (5) tonic
72. VAGABOND: (1) record, (2) wanderer, (3) vagary,
 (4) caravan, (5) mammal
73. ECCENTRIC: (1) odd, (2) magnetic, (3) central,
 (4) excited, (5) gentle
74. INTER: (1) gallop, (2) enter, (3) line up,
 (4) deflect, (5) bury
75. PELT: (1) palfrey, (2) rain, (3) fugitive,
 (4) hero, (5) skin
76. WEIRD: (1) gallant, (2) foolish, (3) constant,
 (4) wiry, (5) strange
77. DIVERSE: (1) stricken, (2) stubborn, (3) liable,
 (4) unlike, (5) mortal
78. PAGAN: (1) heathen, (2) pirate, (3) pageant,
 (4) napkin, (5) homage
79. INERT: (1) sluggish, (2) unearned, (3) creased,
 (4) stringent, (5) redolent
80. STUPENDOUS: (1) gaudy, (2) stupefied,
 (3) original, (4) happy, (5) amazing
81. IMPEDE: (1) view, (2) impress, (3) suggest,
 (4) sing, (5) hinder
82. DELUGE: (1) flood, (2) wreck, (3) dialect,
 (4) humour, (5) delusion
83. SUPPLE: (1) hairy, (2) jolly, (3) merciful,
 (4) flexible, (5) sufficient
84. WAGER: (1) bet, (2) faucet, (3) wagon, (4) factor,
 (5) opera
85. DEMURE: (1) provident, (2) mellow, (3) coy,
 (4) democratic, (5) guilty
86. VAT: (1) handle, (2) vault, (3) studio, (4) ruby,
 (5) large tub
87. AKIN: (1) related, (2) kindly, (3) captured,
 (4) playful, (5) strange
88. SHACKLE: (1) unleash, (3) shake, (3) fetter,
 (4) destroy, (5) shatter
89. INDOLENT: (1) welcome, (2) sincere, (3) evil,
 (4) liberal, (5) lazy
90. FLUENT: (1) massive, (2) flashy, (3) flowing,
 (4) formal, (5) fiery
91. SHEEN: (1) radiance, (2) money, (3) surface,
 (4) fleece, (5) purity

92. ORIFICE: (1) bird, (2) organ, (3) husband,
 (4) aperture, (5) grievance
93. PLUMB: (1) plumed, (2) futile, (3) idiotic,
 (4) vertical, (5) loud
94. INFANTRY: (1) footsoldiers, (2) minority,
 (3) weapons, (4) childhood, (5) cradle
95. OBSEQUIOUS: (1) observant, (2) searching,
 (3) sallow, (4) servile, (5) stubborn
96. IMPERTINENT: (1) lordly, (2) pertaining to,
 (3) insolent, (4) present, (5) radical
97. DEMOLISH: (1) ordain, (2) demoralize,
 (4) insult, (5) destroy
98. IRKSOME: (1) mouldy, (2) tedious, (3) irascible,
 (4) tolerant, (5) numerous
99. INCITE: (1) mark, (2) impede, (3) urge, (4) view,
 (5) manipulate
100. TETHER: (1) tie, (2) exchange, (3) topple,
 (4) entangle, (5) bridle

Literature

DIVISION I

Literature is an art and gives enjoyment. In no instance is this characteristic of literature more evident than in poetry and stories for little children. When we use this material, therefore, the best thing we can do for the children is to give them a "permanent and innocent joy". In the poetry, children find delight in the rhyme and rhythm of musical speech; in the stories, their pleasure comes also from the beauty, whether of the musical flow of language or of the interesting and delightful pictures. Unconsciously their aesthetic sense is developed, and a broad foundation is laid for the appreciation of beauty in many forms.

There is so much charming material available for little children that there seems to be little excuse for the teacher's using inferior selections. The following lists of books will help the teacher to choose suitable poetry and stories.

BOOKS OF POETRY

- When We Were Very Young*; A. A. Milne—Dutton.
Now We Are Six; A. A. Milne—Dutton.
Silver Pennies; Thompson—Macmillan.
A Child's Garden of Verses; Stevenson—Scribner's Sons.
Sing-Song; Christina Rossetti—Macmillan.
Children's Literature; Curry & Clippinger—Rand McNally.
The Poetry Books, 1, 2, 3, 4; Huber, Bruner & Curry—Rand McNally.
For Days and Days; Annette Wynne—Frederick Stokes.
Here, There, and Everywhere; Dorothy Aldis—Minton Balch.
Everything and Anything; Dorothy Aldis—Minton Balch.
Poems for the Children's Hour; Josephine Bouton—Milton Bradley.
The Posy Ring; Wiggin & Smith—Doubleday Page.
Taxis and Toadstools; Rachel Field.
Down—Adown—Derry; Walter de la Mare—Henry Holt.
Peacock Pie; Walter de la Mare—Henry Holt.
Fairies and Chimneys; Rose Fyleman—Doubleday Doran.
Fairies and Friends; Rose Fyleman—Doubleday Doran.
The Fairy Green; Rose Fyleman—Doubleday Doran.

The Fairy Flute; Rose Fyleman—Doubleday Doran.
Under the Green Tree; Elizabeth Madox Roberts—The Viking Press.

Joan's Door; Eleanor Farjeon—Frederick Stokes.

The Golden Flute; Hubbard & Babbit—John Day.

Mother Goose—J. M. Dent.

My Bookhouse; Olive Beaupre Miller—The Bookhouse for Children.

Poems of Childhood; Eugene Field.

Pinafore Palace; Wiggin & Smith—Doubleday Page.

Ring a Ring, I; Richard Wilson—Thos. Nelson & Sons.

Echoes, II; Richard Wilson—Thos. Nelson & Sons.

Words with Wings, III; Richard Wilson—Thos. Nelson & Sons.

Poets Calling, IV; Richard Wilson—Thos. Nelson & Sons.

Invitation to the Play, Books I and II—Thos. Nelson & Sons.

One Hundred Best Poems for Children; Marjorie Barrows.

One Thousand Poems for Children; Roger Ingpen—Macrae Smith.

Fifty Country Rhymes for Children; Edith King—D. Appleton.

Home Book of Verse for Young Folks; Burton Stevenson—Henry Holt.

Chimney Corner Poems; Veronica Hutchinson—Minton Balch.

The Creepie Stool; Elizabeth Fleming.

The Teacher's Omnibus, Book I (Stories and Poems); Dickie & Dill—J. M. Dent.

Primary Poetry, Books I and II; Stevens—W. J. Gage.

Poetry for Every Month; Bradshaw—W. J. Gage.

BOOKS OF STORIES

How to Tell Stories to Children; Sara Cone Bryant—Houghton Mifflin.

Best Stories to Tell to Children; Sara Cone Bryant—Houghton Mifflin.

Mother Stories; Maud Lindsay—Milton Bradley.

More Mother Stories; Maud Lindsay—Milton Bradley.

Told Under the Green Umbrella—Macmillan.

Fairy Ring; Wiggin & Smith—Doubleday Page.

Tales of Laughter; Wiggin & Smith—Doubleday Page.

Magic Casements; Wiggin & Smith—Doubleday Page.

Fairy Tales from Many Lands; Katherine Pyle—E. P. Dutton.

Teacher's Story-Teller's Book; Alice O'Grady—Rand McNally.

East o' the Sun and West o' the Moon; Thorne, Thomson, Gudrum—Row Peterson.

Story Lady's Christmas Stories; Faulkner—J. H. Sears.

Twilight Stories; Carolyn S. Bailey—Milton Bradley.

For the Children's Hour; Carolyn S. Bailey—Milton Bradley.

Here and Now Story Book; Lucy Mitchell Sprague—E. P. Dutton.
Children's Literature; Curry & Clippinger—Rand McNally.
Joy Street Books; G. K. Chesterton, Rose Fyleman and others.
Nature Myths and Stories; Cook—A. Flanagan.
Educating by Story-Telling; Cather—World Book.
Japanese Fairy Tales; Ozaki—Constable & Co.
Growth in English, Book I; Simpson & Adams—Newson & Co.

DIVISION II

Choose Literature Which Gives Pleasure.

In literature, it is particularly desirable that the teacher should himself choose the selections he is to teach.

Literature, for children as for adults, performs two functions: it gives present delight and it develops the taste, the growth in power of appreciation being in proportion to the understanding and enjoyment experienced. It follows, therefore, that in choosing literature for children, it is of first importance to select passages which give them present joy. The joy itself argues a measure of understanding which should be increased by discussion, and the two, joy and understanding, together make up the appreciation which the teacher seeks, an appreciation which grows with each successive experience.

What is it, in literature, which delights boys and girls? In art, the child is attracted by the bright color of the picture; the boy or girl, by its content. Neither the child nor the boy or girl is much interested in its composition or execution. So in literature, childhood enjoys the rhythm of the verse, and the wonder, the strangeness, the surprise of the story. Boys and girls, too, delight in rhythm, but it is the story itself which now engrosses them, the march of its incidents, the liveliness of its action, the courage, ingenuity and skill of its characters. The thought of the author and his style of writing are not consciously noticed.

Have Your Pupils Study Literature by Interpretation.

Having chosen a selection calculated to delight, the teacher must present it in such a way as to emphasize those qualities which interest the pupil. The common procedure is to point out the beauties of style which distinguish the passage. This method is obviously unsound, for boys and girls are not much interested in literary style, and exposition is a procedure unsuited to their stage of development.

How, then, should the selection be presented? In literature, as in the other arts, the child grows towards an appre-

ciation of the work of the artist chiefly through his own efforts in creative expression. The primary child is delighted with the crude drawings which he produces, with his stilted reading, his stumbling recitations, his unskilled performances. In time, boys and girls begin to be dissatisfied with their own efforts, and the more skill they acquire, the more critical they become. As they approach adolescence, and the limit of their own skill is reached, they abandon the attempt to excel in arts for which they now realize that they have no special gift, but they find increasing satisfaction and pleasure in the successful work of the artist. It is through creative effort, therefore, through participation and imitation, and not by listening to exposition and comment, that boys and girls develop an appreciation of great literature.

Types of Literature Lesson.

In short: the teacher is urged to teach the literature of Division II much as he has always taught the literature of Division I: by story reading and story telling, verse speaking, and dramatization, rather than by formal lessons.

Ways in Which Pupils May Interpret Literature.

Individual recitations.

Choral recitations.

Oral reading to entertain an audience.

Dramatization.

Illustrating a story or poem.

Constructing scenes, incidents, and characters with plasticine or paper.

Listening to the teacher read aloud, and afterwards discussing the passage.

Collecting favorite poems or passages in booklets, made and illustrated by the pupil.

Collecting information about favorite authors, or literary heroes.

Commenting on what has been read, or criticizing it.

Writing verses, stories or plays that reproduce or imitate what has been read.

Reading silently for pleasure.

Of these interpretative methods of studying literature, the last is the simplest; it is also one that makes rich returns to the trained reader. It should be remembered, however, that the fruits of the method are rich in proportion as other methods have been practiced. It is the experience of literature that makes it live for the pupil; that enriches background, develops imagination, deepens understanding and strengthens appreciation, giving increased delight. By the accumulation of these creative experiences, the reader is, by and by, able to see the page live and move before him while he sits still and silent in his chair.

The Organization of the Division.

For all literary activities Division II may be taken as one group.

General Principles of Method.

In aiding pupils to meet minimum requirements in literature it is important that teachers should not lose sight of the following considerations:

1. Two chief aims of any course in literature are the cultivation in the pupil of a capacity for genuine enjoyment of good literature and the development of desirable viewpoints and habits. Obviously, objective or exact measurement of such outcomes through any formal class-room technique is impossible. But the acceptance of this fact must not be considered a reason for minimizing the importance of these outcomes, or for striving any the less earnestly for their realization.

2. Although enjoyment is an emotional state, literary appreciation within the limits of the learner's capacity should be founded on comprehension. Education's richest possibilities lie, perhaps, in the direction of intellectualizing human emotions. Therefore, the pupil in Division II should be regarded as in a transitional stage between the uncomprehending sensory enjoyment proper to the infant and the intelligent satisfaction of the educated adult. The teacher will steer a middle course between a sham appreciation, divorced from mental effort, on the one hand, and a wearisome study of detailed word-meanings on the other.

3. An enterprise curriculum necessarily brings to the school greater freedom and more responsibility. The intelligent teacher will view as hindrances prescribed lists of literary selections, which the mere class-room mechanic may consider indispensable safeguards. If the teacher finds that even the most careful planning cannot introduce sufficient literature into the school's enterprises to attain the minimum essentials listed below, she will feel free to teach additional literature apart from enterprise work. She will encourage the pupils to share in the choosing of material to be memorized.

4. The number or requirements should not mislead a teacher into attempting to achieve too much through any one piece of literature. As pupils study a particular selection, the teacher must limit his efforts to the attainment of a very few objectives; frequently to only one. He will steadily refrain from dragging moral teachings into non-didactic literature.

Minimum Requirements for Three Years.

On completing the work of Division II pupils should be able to satisfy the minimum requirements given below. In the last six of these, if desired, it is evidently possible to measure the completion of half or one-third of the child's progress through this division.

Every pupil should—

1. Show evidence of growth in the acquirement of those ideals and habits which go to make up the desirable behavior. In the concrete situations of school-life the child's daily relationships with his fellows should indicate that, in gradually increasing measure, he admires and possesses qualities such as truthfulness, fairness, sense of responsibility, helpfulness, moral courage and gentleness.
2. Recognize and enjoy some of the beauties which his study of both nature and literature reveals to him in his natural environment, as well as very simple beauties of rhyme, rhythm, word-choice and imagery that have been found in the literature studied.
3. Be able to state and to apply to his own experience the central thoughts expressed in his literature.
4. Recognize readily the humor present in his literature.
5. Be able to give concrete details of a mental picture suggested by any suitable extract from the literature he has studied.
6. Avoiding the naive classification of people as "good" and "bad", be able to give a few important characteristics of persons appearing prominently in his literature.
7. Be able to read orally, with reasonable intelligence and sympathy, at least twelve selections studied as literature. (Although oral reading by the pupil is usually a good test of his appreciation, the teacher should not confuse an oral reading lesson with one in literature.)
8. Be able to reproduce in an interesting manner the narrative of at least twelve stories found in the three readers authorized for this Division.
9. Have participated in at least twelve choral recitations.
10. Have taken a satisfactory part in at least six dramatizations.
11. Be able to prove familiarity with at least six books that he has read for pleasure.
12. Be able to recite pleasingly at least two hundred lines of poetry.

Books to Use for Literature.

(To be read to the pupils by the teacher.)

Poetry.

Burning Gold; King's Treasuries (J. M. Dent & Sons).

Flint and Feather; Pauline Johnson (Musson & Co.).

Peacock Pie; De La Mare (Constable & Co.).

The Canadian Poetry Book (J. M. Dent & Sons).

The Singing World; Untermeyer (Harcourt Brace & Co.).

Prose and Verse Speaking for Schools, Books I to VI
(Geo. Harrap).

Tennyson selections.

Longfellow selections.

Prose.

Grimm's Fairy Tales.

Andersen's Fairy Tales.

Tales of Robin Hood.

The Boy's King Arthur; Lanier.

In the Days of the Giants; Brown.

Old Greek Stories; Baldwin.

Myths Every Child Should Know; Mabie.

Heroes Every Child Should Know; Mabie.

Alice in Wonderland.

Robinson Crusoe.

Pilgrim's Progress.

Peter Pan.

The Arabian Nights.

Speech Training, Verse Speaking and Choral Speech

(For the Whole School)

INTRODUCTION

It is unnecessary to enlarge upon the value of speech training; everyone admits its importance. The exercises suggested in this course are simple and few in number, but experience has proved that they are keenly enjoyed by the pupils, and that practising them regularly brings about surprising improvements in speech. *These exercises are intended for use with the whole school; that is, either with Division I or with Division II, or with both divisions together.*

The Voice.

The voice is produced by a stream of air passing outward over the vocal chords. The voice mechanism is muscular and, like all muscles, it requires training and practice to make and keep it fit.

The Voice Mechanism has four parts:

The *chest walls* control the stream of air.

The *vocal chords* produce the voice.

The *resonance chambers*, in the throat, nose and mouth, enlarge and enrich the voice.

The *mouth*, with soft and hard palate, tongue, teeth, teeth ridge, lower jaw, and lips, moulds or forms each of the different vowel or consonant sounds of the language.

For Good Speech,

Inhale deeply.

Exhale with a smooth, even flow of air.

Relax the throat. Relax! Speak pleasantly!

Place your tone on the lowest note you can use easily. It gives your most beautiful speaking tone. Practice speaking on that note. It requires a very short time to make this a habit.

Use all your resonance chambers.

Open the throat and mouth completely.

Keep the tongue flat.

Place the parts of the mouth in the correct position for enunciating each sound. If you do so, you cannot produce the wrong sound. If a sound is mispronounced, some part of the mouth is in the wrong position.

Speak vowels with an open throat.
Speak consonants crisply.
Deliver your speech at the lips.

The Time.

Five to ten minutes daily should be spent in speech training. The pupils in a rural school should take the work as one group.

The Speech-Training Lesson.

The following order is suggested:

Take correct sitting, or standing position.

Breathing exercise—General, No. 1.

One other breathing exercise.

One resonance exercise.

One articulation exercise.

Group practice of any jingle, verse, poem, sentence, words for enunciation, forms for correct usage, or choral speech which the class already knows.

Group practice of any new piece of speech work which the class may have in hand.

SPEECH-TRAINING EXERCISES

Standing and Sitting Exercises.

The speaking exercises which follow cannot be practiced satisfactorily until the children have been taught to take correct sitting and standing positions: erect; head up, chin well in; shoulders free, not held stiffly back; arms easily at the sides; back flat, not deeply curved in at the waistline; abdomen in; hips back at the top, forward at the bottom; weight on the balls of the feet. Standing with the heels about two inches from the wall, make the hips, elbows, waistline, back, shoulders and head touch the wall. Give a little push with the elbows to send the body erect and you have correct standing position. Correct sitting position is the same from the hips upward. The seat should be low enough that, when the feet are placed flat on the floor, the hand can be inserted between the chair and the under part of the knee. The following exercises will help to develop correct habits:

1. Sit, or stand, erect, with head up and chin in.
2. Sit, or stand, with back flat against the wall or seat. Head, shoulders, waistline, hip, should touch wall or seat.
3. With arms stretching upward, sit, or stand, as tall as possible.
4. With arms by the sides, sit or stand as tall as possible.
5. With the hands by the sides, raise the shoulders and make them move in a circle, front, up, around back, down. Repeat 3 times.

Breathing Exercises (General).

1. The children sit, or stand, in correct position. The teacher beats a placid and regular one, two, three, the children inhaling through the nose—in, two, three; out, two, three. Try to get the breath flowing in and out smoothly.
2. Repeat the above exercise, exhaling through the nose.
3. Beat threes as before. This time include a “stay”, which is better than “hold”, as it is less likely to make the pupil tense. In, two, three; stay, two, three; out, two, three.
4. Breathe in, two, three. On “out” of next bar, clap the hands smartly. Children drop the jaw and clear the lungs quickly on “ha!”: in, two, three; out “ha!” Repeat 3 times.
5. “*Big Man*”—Raise the chest, extending it as much as possible by muscular action. Breathe in, two, three; out, two, three.
6. “*Mr. Frog*”—By muscular action swell out the lower ribs and draw them in; out, in. Repeat 3 times.
7. “*Tired Dog*”—With lower ribs swelled out, pant 5 times.

Breathing Exercises for Control.

1. “*Chickadee*”—Take a deep breath and exhale, saying “chickadee, dee, dee,” as long as possible.
2. “*Steam Engine*”—Take a deep breath and exhale, saying “s-s-s-” as long as possible.
3. “*Feather-in-the-air*”—Take a deep breath and, pretending to toss a feather into the air, keep it up by blowing softly as long as possible.
4. “*Swim-under-the-water*”—Take a deep breath and, moving the arms from front to back as in swimming, hold the breath for 2, 3, 5, 7, 10 counts.
5. “*Let-go*”—Inhale, exhale, letting a little go in each count; 1, 2, 3, 4. Practice this till the children can let go on counts up to ten.

Relaxation Exercises.

1. Take a deep breath slowly; exhale slowly.
2. Raise limp arms slowly; lower slowly.
3. Bend body forward at waist, drooping limply. Raise slowly.
4. Lower head slowly to chest; raise slowly.
5. Drop the jaw, opening the mouth. Do not push down; let it drop. Raise slowly.
6. Take sitting, or standing, position. Tense the body, stiffen fingers, stretching towards floor, or tighten the hands into fists. Tense slowly, relax slowly.
7. Tense throat; say “dog” harshly; relax throat, say same word softly. Repeat with any word.
8. When a child is reading or speaking harshly, remind him to relax his throat. He can do it immediately.

SPEECH TRAINING EXERCISES

Exercises for Resonance.

1. "*Bumble Bee*"—Hum "m" on three slow beats. Pupils should feel sound high behind the nose and at roots of upper teeth. As the children say, "humming tickles your teeth".
2. Repeat exercise with "n" and "ng".
3. Take the exercise with "m", changing to "n", changing to "ng". The tone should flow smoothly without a break, one strip of sound moulded in different ways.
4. Take same exercise with other vowels and final consonants.
5. "*Rolling 'R'*"—Say "ah brrrr"; repeat. Many people find it difficult to trill the "r", but the children will think it fun, and practice till they get it. It is an invaluable exercise for breath control, stimulating the soft palate, and agility of the tongue, as well as for resonance.

Articulation Exercise.

JAW.

1. Open mouth as wide as possible. Close slowly; open, close; open, close—five times. This limbers the muscles at the hinge of the jaw. It is also a useful relaxation exercise.
2. Relax the lower jaw and move it slowly from side to side three times; then move it slowly down, around, and up, as in chewing.
3. Open the jaw about two finger-widths and with an open throat say "ma—ba—pa". Repeat five times, keeping the throat relaxed all the time. Note how soft are the sounds made by a relaxed throat.

THE LIPS.

Stiff and unused lips are a very common cause of ineffective and uninteresting speech. A great many faults are due to lazy lips; as, "noo" for "new", etc.

1. Rub the tongue over the lips, wetting them. Then rub the teeth over them, biting them very gently.
2. Make the lips as narrow as possible, drawing the corners as far back as you can; "narrow—relax", etc.
3. Raise the right side of upper lip; raise the left side. "Right—left". Repeat five times.
4. Repeat "eedge—eedoh" many times rapidly.
5. Make the lips flare outward like the mouth of a trumpet, saying the word "new" correctly. Exaggerated lip action will enable you to do this. After you have learned to do it you need only to think "new". The teacher might practice this exercise before a mirror till she gets it.

6. Prepare a list of words in "u"; as, "new", "dew", "stew", "student", "Tuesday", "lure", etc. Have the children practice saying these singly and in sentences.

THE TONGUE.

The tongue is the most important organ of pronunciation. Control of it is essential to good speech.

1. Point it upward.
2. Point the tongue out and downward towards the chin.
3. Wag the tip up and down for eight counts. Begin at right and go around; then from the left around.
4. Protrude tongue with groove in middle, raising both sides.
5. Rotate the tongue around the outside of the mouth.
6. Curl the tip back to a point behind the upper teeth; "up—down", "up—down", for eight counts.
7. Press tongue against the back of lower teeth; "press—go, press—go", for eight counts.
8. Say "lee—lee—lee" very rapidly for a few seconds.
9. Trill "r".
10. Tongue twisters are useful.

METHODS OF PRODUCING SOUNDS

LIP SOUNDS

P: This sound is prepared for by pressing the lips lightly together, forcing the breath against them, and then suddenly opening them with a "puff". A vowel sound is usually attached to the puff.

B: This sound is pronounced with similar preparation. The lips are not pursed as much but the breath is emitted through a broader opening. A vowel sound is attached in speech.

LIP-TEETH SOUNDS

F: The breath is forced through the opening just as the lower lip is raised gently against the edges of the upper teeth and then withdrawn. When followed by a vowel, the closure of the lips with the teeth is made first, the sound coming out as the lip is suddenly drawn down.

V: This sound is closely related to the preceding except that the sound is made only as the lower lip and upper teeth are separated. The lip is drawn slightly inward over the teeth.

TONGUE SOUNDS

T: This is a tongue-roof-of-the-mouth burst of air introducing (in words) a vowel. The end of the tongue is placed broadly against the gums of the upper teeth (lips apart). The air is compressed in the mouth and let loose by suddenly removing the tongue from contact with the gums.

D: This sound is formed in much the same way, a slight change in the shape of the tongue as the air is expelled giving a heavier sound.

Th as in "this" is a tongue-teeth sound. When it is correctly produced, the tip of the tongue is placed between the teeth and the breath is forced through.

S: This hissing sound is produced without first compressing the air, this being forced through the nearly closed teeth with the lips somewhat apart. The hollowed tongue is lifted near the gums of the upper teeth.

Z: This is formed in the same way as "S", but the teeth are brought slightly closer together and the tip of the tongue is held lower.

Sh: This sound is produced much in the same way as "S", but with a broader opening (flatter tongue) between the tongue and gums. The lips are slightly protruded.

Ch: The tongue is placed flat across the hard palate just above the upper gums, and the air pressure is raised in the mouth. The tongue is then suddenly lowered and the air discharged. A similar sound accompanies a sneeze.

J: This sound is produced in a manner similar to that for "Ch", but with a slightly different manipulation of the tongue.

L: This is very much a tongue sound. The tip of the tongue is lifted to the roof of the mouth and the upper gums, while the air is forced through the mouth on either side of the tongue.

R: The tip of the tongue is raised toward the hard palate, its base being depressed. The air is forced through the mouth above and about the tongue.

Y: The lips are slightly protruded, and the tongue is rounded; its tip being held loosely behind the lower teeth; and the air is forced through the lips, which are spread as they are retracted.

K and Hard C: The back of the tongue is raised against the soft palate, and the air is suddenly forced through as the tongue is lowered.

G (hard): The sound is similar to "K", the back of the tongue being held somewhat lower.

NASAL SOUNDS

M: A stream of air is forced through the nose. The lips are kept closed.

N: The air is forced through the nose, as above, but the tip of the tongue is placed against the upper gums, and the lips are kept open.

Ng: This sound is made in much the same manner as "N", except that the back of the tongue is raised against the soft palate.

H: The mouth is opened, the tongue lies loosely in its floor, and the air is forced through.

VOWEL SOUNDS

A as in "Ale": The lips are well apart; the teeth are well separated; the sides of the tongue touch lightly the back upper teeth.

A as in "Air": The lips and teeth are further separated, and the tongue is held a trifle lower.

A as in "Mat": The mouth is opened wider than for the preceding sound as the letter is uttered.

A as in "Mar": The mouth is opened still wider for this sound.

A as in "Awe": The lips are pointed to make a round opening, the tip of the tongue is lowered into the floor of the mouth and its base is raised somewhat.

E as in "Eel": The lips and teeth are held about as far apart as for "A" in "Ale". The tip of the tongue is against the lower gums but the body of the tongue is raised near the roof of the mouth.

E as in "Net": This sound is made very much like long "E" but the mouth is opened wider.

I as in "Mile": This is made like long "E" above with the mouth still more open.

I as in "Bird" (also "e", "o" and "u" in some words): The jaws are brought closer together than for long "I", the tongue being kept in about the same position. The lips are slightly protruded.

O as in "Old": The lips are pointed with the tongue held low.

O as in "Boat": The lips and teeth are drawn more closely together than in long "O".

O in "Stop": Similar to but not identical with "a" in "arm" and in "awe".

U in "Use": Made like "y" followed by "oo".

U in "Hut": Made with teeth wide apart, tongue on floor of mouth.

Exercises with Combinations of Sounds.

The consonant sounds which are in need of correction should be practiced with each of the long vowel sounds; as:

Th: Tha, the, thy, tho, thu, ath, eth, ith, oth, uth.

P: Pa, po, pi, poo, ape, eep, ip, op, oop.

The same combinations can be made for the other consonants, and with the other sounds of the vowels.

Words containing the difficult sounds should be practiced daily until readily uttered. Emphasis should be placed on the special letters.

Th as in "think": Thane, theme, thin, thule, faith, fifth, breath.

Th as in "then": They, these, them, their, thine, those, bathe, lithe.

P: Pay, peep, pipe, pope, ape, steep, wipe, stop, stoop.

B: Bait, bite, bib, boat, boom, able, babble, bumble.

F: Fail, fair, feel, foal, fool, full, coffee, ruffle, rift, roof.

V: Vane, vine, vocal, weave, wives, wove, remove, shelve.

T: Tame, team, time, tone, tune, late, meat, sight, seat, boat, right.

D: Dame, deem, dice, dope, duke, maid, seed, ride, abode, wood.

S: Save, see, sight, sole, soon, mass, obese, miss, loose.
Z: Zero, zinc, zoo, maze, prison, studies, houses.
Sh: Shave, sheen, shell, wash, wish, thrush.
Ch: Chain, chest, chime, choke, church, sachem, preach,
 couch.
J: June, jest, jibe, joke, just, strange, college, bridge.
L: Lane, lean, lime, load, lure, animal, tremble, rumble,
 simple.
R: Rain, ream, ride, risk, rune, moral, manner, fire, lurid.
Y: Yale, yarn, yeast, yes, yolk, young, you, yule.
K (c): Kate, cat, keep, coat, cuff, cute, make, meek, poke,
 look, concave.
G: Gate, get, gig, brogue, agog, mug, great, glacier,
 aggregation.
M: Man, meek, mile, mole, mule, lame, beam, limb, slim,
 boom.
N: Name, near, nice, nose, noose, man, ween, win, won,
 centennial.
Ng: Bang, tangle, mingle, among, wrong, sung, conquer.
H: Home, heap, high, hold, hung, hogshead, hard-headed,
 hedgehog.
A: At, mat, flat, pat, contract, snap, attract, actual.
A: Air, pair, beware, compare, declare, chair, fair, hare.
A: Are, car, far, jar, mar, par, star, catarrh.
A: Awe, law, maw, macaw, paw, thaw, raw, saw.
E: Eel, bead, meal, seed, breeze, wheeze, precede, weed.
E: Effect, ethyl, met, net, methyl, metal, petal.
I: Bile, mile, tile, wile, while.
I: In, imp, ill, commit, wit, sit, trill, principle.
I: (e), (o), (u): Bird, girl, earl, pearl, unfurl, whirl,
 verse, absurd, world.
O: Oats, boat, goat, mote, throat, solo, propose, over.
U and OO: Boot, hoot, root, tool, rule, truth, cruel, dule,
 full, bull, pull, hood, wood, stood, would.
U: Bud, mud, hush, ruddy, drub, publish, blushing,
 sluggard.

FOR ENUNCIATION DRILL

Words of which enunciation is often faulty.

1. The vowel is slurred or pinched:
 to, you; for, your; was, because; of, from; get, says;
 just, such.
2. The final consant is slurred or dropped:
 g: doing, being, having, seeing, walking;
 d: and, old, told, asked;
 t: kept, accept, wept, swept;
 th: months, lengths, width, twelfth, strength, breadth,
 fifth, eighth.
3. The vowel "ew" is mis-pronounced "oo":
 new, news, dew, due, dude, duke, stew, steward, stu-
 dent; lure, literature, picture, figure, amateur, suit,
 pursuit, issue; lute, absolute, lewd, prelude, tune,

tulle, Tuesday; produce, introduce, constitution, institution, numerous.

4. The long sound of "a" is mis-pronounced short:
palm, calm; psalm, almond; father, rather.

5. Short "a" is pronounced in the teeth; place it farther back, in the mouth, and open the mouth round rather than wide for the following words:

can't, aunt, ask, laugh, grass, pass; path, half, calf, bath, staff, waft; haft, draught, mast, hast, cast; dance, ranch, France, advantage.

6. A consonant is transposed:
children, hundred; introduce.

7. A sound is added:
once, twice, subtle, umbrella; attacked, drowned, athletic, pronunciation; across, trait, chimney; elm, film; often, towards, extraordinary, mischievous.

8. A sound is omitted:
clothes, months, length, strength, twelfth, poem, poetry, violet, library, February, suppose, educated, immediately; geography, history, arithmetic; literature, barrel, diamond, chocolate, England, medieval, recognize, correct, window; arctic, antarctic, Wednesday, eleven, perhaps, particular, natural, usually, regular, surprise, different, government, generous.

9. The vowel sound is mispronounced:

a: catch, carry, breeze, marriage, Harry;

e: preface, creek, breeches, mosquito, piano, Hiawatha, sacrilegious;

i: heroine, genuine, quinine, agile, agility, direction, Italian;

i: appendicitis, tonsilitis, tiger;

o: oven, route, food;

u: butcher, put, supple, subtle, suburb.

10. The accent is misplaced:

interesting, theatre, advertisement, difficult, compromise, comparable, exquisite, vaudeville, decorative, hospitable; progress (noun), progress (verb), influence, admirable, address, prestige, hostile, romance, laboratory, requisite; evidently, debris (ee), debut (oo), ballet (a), valet (a).

11. Phrases for enunciation drill:

they are, there are, did you, don't you, won't you, can't you, going to, he says, give me, let me, was he, this one, tell her, come here, used to, can you, have to go, could have, would have, is that so.

12. Jingles for resonance and enunciation practice:

The Shop Bell

The bell-spring swings
And the small bell rings
With a tingaling, tingaling,
Tingalingaling.

Here's someone who is willing
To spend a silver shilling,
So come along.
Dingadong!
Tingalingaling!

Windy Nights

Rumbling in the chimneys,
Rattling at the doors,
Round the roofs and round the roads
The rude wind roars,
Raging through the darkness,
Raving through the trees,
Racing off again across
The great grey seas.

The Cookery Book

Cook took a look
At her Cookery Book.
She wasn't quite sure
What they'd like her to cook,
So she took a quick look
At her Cookery Book.

"Th"

When I say "the" my tongue pops out.
Do you think it pops out well?
I think I'll get my looking glass,
So that I can look and tell.

Th! th!
This thing.
Th! th!
That thing,
This thing,
That thing.

Yes, it pops out very well!

Christmas Bells

Ding dong dong ding!
In every steeple, bells swing.
Ding dong ding dong!
Bells swing all the morning long.
Ding dong boom!
Ding dong boom!

Thick and Thin

Bertha sews with thin thread,
Martha sews with thick,
For Bertha sews a thin silk smock,
But Martha sews a thick.
So Bertha sews with thin thread,
While Martha uses thick.

Laughter

"He laughs longest
Who laughs last".
That perchance is true.
But "He laughs last
Whose laugh lasts longest".
Is not that true too?

Muddlesome Men

Mumble and Mutter
Are muddlesome men,
Making mistakes
Again and again.
Run away, Mutter,
Run away, Mumble,
Home to your friends,
Messrs. Stumble and Jumble.

Dimensions

We say "Length, depth and breadth".
You got those three things right?
Some people *will* say "Heighth".
It should, of course, be "Height".

The Popcorn Shop

Peter popped a penny in his pocket,
And puffed off with his pup and didn't stop
Till he pulled the precious penny from his pocket
And bought some prime pink popcorn
At the Tip-Top Popcorn Shop.
(It was tip-top prime pink popcorn, too!)

—From "Play Way of Speech Training"; Rodney Bennett.

13. Tongue Twisters for Consonant Practice:

He thrust a thorn through his thumb.
She sells sea shells, sherry and sand shoes.
I snuff shop snuff; do you snuff shop snuff?
Round the rugged rocks the ragged rascal ran.

Peter Piper picked a peck of pickled peppers;
A peck of pickled peppers, Peter Piper picked.

When we eat, we use our teeth,
And the top teeth meet the teeth beneath.

Do breath tests test the breath?
Yes, that's the best of a breath test.

Can you say, "These six thimbles"?
Simply "These six thimbles", eh?
If you practise "The six thimbles",
"These six thimbles", soon you'll say.

The sea ceaseth, and it sufficeth us.

14. Lines for Vowel and Consonant Practice:

With eyes upraised as one inspired . . .
The blast it hollow blew . . .
The moony vapour rolling . . .
Then yelped the cur and yawled the cat . . .
O'er the dark-armed, red-trunked pine . . .
Laura loitered among the lilies . . .
His flying fingers touched the lyre . . .
The loud laugh that speaks the vacant mind . . .
And e'er her ear had heard, her heart had heard . . .
Roll on thou deep and dark blue ocean, roll! . . .
The mellow lin-lan-lone of evening bells
Far, far away. . .

He, stepping down by zig-zag paths
And juts of pointed rock,
Came on the shining levels of the lake.

VERSE SPEAKING

Aims.

- Enjoyment of the selection.
- Development of an appreciation of literature.
- Practice in the expression of that appreciation.
- Development of the voice.
- Practice in speaking beautifully.

The Verse-Speaking Lesson is a Literature Lesson.

Give a suitable setting.

Read the selection to the class.

Discuss with the class the general effect of the piece, its particular beauties, the rhythm and how to express it, the words and how to enunciate and group them, the parts to be said by the light (high) voices and those to be spoken by the dark (low) voices.

Work out the choral recitation of the selection as it appeals to teacher and class.

Teach Your Class—

1. To beat time softly as the teacher reads or recites.
2. To express the time by some suitable movement as they themselves recite.

3. To recite and beat a variety of rhythms:

(a) **Drum-beat:** "The Queen of Hearts", "Simple Simon", poems in *When We Were Very Young*, by A. A. Milne.

(b) **Walking, Marching, Running:** "Hot Cross Buns", "How Many Miles to Babylon?", "John Brown's Body", "The Wind in a Frolic", "We Be the King's Men".

(c) **Dancing, Skipping:** "Mulberry Bush", "Nuts in May", "Little Nut Tree", "Go Down to Kew", "Hoppity", "Robin Hood's Wedding".

(d) **Riding:** "I Had a Little Pony", "Three Jolly Gentlemen", "My Heart's in the Highlands", "The Highwayman", "The Ride from Ghent to Aix".

(e) **Rocking:** "Hush-a-by", "Sweet and Low", "White Sheep", "Rock-a-by Baby", "Little Blue Pigeon" (Japanese Lullaby), "The Sleepy Man", "The Sandman".

(f) **Bells:** "Jingle Bells", "Gay Go Up and Gay Go Down", "The Bells Swing", "Evening Bells" (Tennyson).

4. Teach the pupils to use the rhythmic stress in reciting; that is, while keeping the time, to place the stress on the word which the thought indicates, running lightly over the words which are unimportant in thought. This fills the recitation with little runs and trills as in music, and makes it much prettier than if the metric stress is used; for example: "The Little Nut Tree", if read with metric stress, is perfectly regular and monotonous. If read with rhythmic stress, however, it has a charming music.

5. Have the pupils, by listening and beating, find out the number of stresses in each line. Point out that, in beating, the hand rises on the light stress, and falls on the heavy stress. Teach them to mark the light and heavy stress and also the runs, trills, and rests, in the poetry read with rhythmic stress.

6. Teach the pupils to hear, and to recognize when read, the four common tunes (or meters) of English poetry:—

Iambic—"The King of France Went Up the Hill".

Trochaic—"Twinkle, Twinkle, Little Star".

Dactylic—"Here We Come Gathering Nuts in May".

Anapestic—"On Christmas Day, in the Morning".

SELECTIONS FOR CHORAL SPEAKING—DIVISION I

1. The teacher or a pupil recites or reads while the class keeps time by appropriate movement:—

"Rock-a-by Baby".

"To Market, to Market".

"Ride a Cock-horse".

"See-saw, Marjorie Daw".

"The Swing" (Second Reader).

"Windy Nights" (Second Reader).

"Three Jolly Gentlemen" (de la Mare).

"The Barbers" (de la Mare).

"The Japanese Lullaby" (Field).

"Lines and Squares" (Milne).

"Hoppity" (Milne).

2. The teacher, or a pupil, recites the stanza, and the class joins in the chorus:—

"Bumpety Bump" (Old rhyme).

"The Wind" (Second Reader).

"The Owl and the Pussy Cat" (Third Reader).

"The Merry Fairy".

"The Sleepy Man" (Second Reader).

3. A group recites while others dramatize, each actor saying his own line at the correct time:—

“Simple Simon”.

“The Brave Old Duke of York”.

“What Does Little Birdie Say?” (Tennyson).

“Who Stole the Bird’s Nest?” (Second Reader).

“The Wind and the Moon” (Third Reader).

“Bumble Bee and Clover” (Second Reader).

“Who Likes the Rain?” (Second Reader).

4. A different pupil, or a different group of pupils, recites each line or each stanza. Possibly some of the lines or stanzas may be said in chorus:

“Monday’s Child”.

“How Many Miles to Babylon?”

“Atchoo”.

“Splish-Splash” (Second Reader).

“Pippa’s Song”.

“The Bill of Fare” (Second Reader).

“The Fairies” (Third Reader).

“A Fairy Went A-Marketing” (Third Reader).

“Christmas Everywhere” (Second Reader).

5. Two groups recite antiphonally:—

“The North Wind Doth Blow”.

“Who Has Seen the Wind?” (Rossetti).

“The Moon” (Second Reader).

“The Elf and the Dormouse” (Third Reader).

6. The whole class speaks as a choir, in unison, working for beautiful speech in tone, inflection, and enunciation:—

“A Nature Song” (Second Reader).

“Fairies in Canada” (Second Reader).

“Silver” (Third Reader).

“Lullaby of the Iroquois” (Third Reader).

“White Horses” (Third Reader).

SELECTIONS FOR CHORAL SPEAKING (GENERAL)

1. The teacher reads or recites while the class expresses the rhythm by suitable movement:—

“The Canadian Boat Song” (rowing).

“How They Brought the Good News” (galloping).

“The Bells of Shandon” (bell movement).

“Sweet and Low” (cradle movement).

“Go Down to Kew” (barrel organ).

2. The teacher, or one pupil, recites the stanza, and the class recites the chorus:—

“The Sleepy Man” (Roberts).

“The Lobster Quadrille” (Carroll).

“Greensleeves”.

“Boat and Saddle” (Browning).

“Charlie is My Darling” (Lady Nairne).

- "The Smuggler's Song" (Kipling).
- "Green Broom" (Enchanted Paths).
- "The Golden Variety" (Hearts High).

3. A different pupil, or a different group of pupils, recites each line, all coming in together, perhaps on the last line:—

- "She Wore Her Yellow Sun-bonnet" (Daffydowndilly).
- "When the Cows Come Home" (Rossetti).
- "The Pirate Don Durk of Dowdee" (Fifth Reader).
- "Three Little Foxes" (Milne).
- "We Be the King's Men" (Hardy).
- "Hiawatha's Hunting" (Fourth Reader).

4. Two groups of pupils recite antiphonally:—

- "Lady Moon" (Houghton—Enchanted Paths).
- "Rain Talk" (R. Newell White).
- "The Night Will Never Stay" (Eleanor Farjeon).
- "The Bluebells of Scotland".
- "Big Steamers" (Kipling).
- "The Beatitudes" (The Bible).
- "I Will Lift Up Mine Eyes" (Fourth Reader).

5. Three, or more, groups of "light", "medium" and "dark" voices reciting in turn:—

- "The Song My Paddle Sings" (Fifth Reader).
- "The Barrel Organ" (Kew in Lilac Time).
- "The River" (Scott—Fifth Reader).
- "Admirals All" (Newbolt).
- "Recessional" (Kipling).
- "Here and There" (Allingham—Fourth Reader).
- "Some One" (de la Mare—Fourth Reader).
- "Princess and the Gypsies" (Hearts High).

6. The most beautiful way to recite the poetry is by unison speech; that is, the class speaking together as a choir. The class may be divided into groups of "light", "dark" and "medium" voices, each group taking its part as suits the poem. This method is, of course, the most difficult, as a great deal of practice is needed to get the tones soft and flexible, the enunciation of each vowel and consonant correct, the "attack" and carry-through exactly together, the voices varying, and the expression right for the feeling of the piece. The following selections may be used in this way:—

- "The Thristle" (Tennyson—Fifth Reader).
- "Crossing the Bar" (Tennyson).
- "A Wet Sheet and a Flowing Sea" (Hearts High).
- "The Fairy Queen: Come Follow" (Shakespeare).
- "Lullaby of an Infant Chief" (Scott).
- "The Vagabond" (Stevenson—Enchanted Paths).
- "The Ships of Yule" (Carmen—Fourth Reader).
- "April Rain" (Loneman—Hearts High).
- "The Skater" (Roberts—Hearts High).

BOOKS ON SPEECH-TRAINING AND VERSE-SPEAKING

The Play Way of Speech Training;

Rodney Bennett (Evans Bros.).

Spoken Poetry in the Schools;

Marjorie Gullan (Methuen & Co.).

A Guide for Teachers of Non-English-Speaking Children;

State of California, Department of Education;

Bulletin 8, April 15, 1932.

Manual of Teaching English to French-Speaking Pupils;

Department of Education, Ontario.

Speech Defects and Their Correction;

J. F. Rogers; Office of Education, Washington, D.C.,
1931.

Defects of Speech, Nature and Cure;

Ida C. Ward (J. M. Dent & Sons, Toronto).

Choral Speaking;

Marjorie Gullan (Expression Co., Boston).

Language (and Spelling)

DIVISION I

The programme for Social Activities in this division provides excellent opportunities for the use of language, and for the teaching of it informally. Each enterprise will bring many new words into the children's spoken vocabulary, and will also enlarge their written vocabulary. The games, reports and dramatizations require good sentence structure, accurate pronunciation and correct forms of speech. *All of the language teaching that is necessary may be given during the preparation of the enterprises*, instead of being arranged in a series of unrelated lessons and exercises.

There is, however, a more formal side of speech training that requires attention; for example, exercises in breath control, exercises on difficult sounds, jingle exercises for freedom and resonance. Training of this kind should be given to the whole school, or to the whole division, as the case may be, at the same time; and suggestions for this training will be found in the section of this programme entitled, "Speech Training, Verse Speaking, and Choral Speech". Since different groups understand and perform best at the level of their own ability, suggestions are made for each division. Material appropriate to Division I will include the following: (a) breathing exercises; (b) jingle exercises for freedom, facility and resonance; (c) exercises for correct pronunciation; (d) verse speaking, and choral speech; (e) exercises in correct usage; and (f) word study and spelling.

Correct Usage.

Games and drills may be used for establishing correct forms, and as far as possible *these will be employed in connection with an enterprise*. The following require practice: *I saw, I did, Mary and I, I shall, he does, it isn't, you were, I have, may I have?, I have seen, I have gone, I came, I have written, they are, there are.*

Word Study and Spelling.

"The need to spell is the need to write". The opportunities for writing, and the consequent need for spelling, will be found in exercises of the following types:

- (a) Seat-work exercises in reading.
- (b) Labelling materials.
- (c) Writing sentences or stories in booklets.
- (d) Writing simple letters.
- (e) Writing original sentences or verses.

Since these activities are all to be found in the enterprises, *spelling will be linked with the work of the Social Activities.*

The following groups of words are suggested as basic material for spelling:

Child's name.

Yes, no.

Numbers 1-10.

Names of colours—red, blue, white, black, green, yellow, brown.

Names of common animals—dog, cat.

Names of common objects at school—a book, the chair.

Names of common objects at home—milk, car, etc.

Names of common objects in nature—tree, sky, etc.

Adjectives—big, little, good, bad, best, dear, cross, long, nice, tall, fat, this, new, old, etc.

Adverbs—away, back, now, never, soon, early, then, etc.

Phrasal subjects—my mother, our baby, your desk, their chairs, his pencil, her book, the old man, a little boy, Mr. Smith, Miss Bell, etc.

Prepositions (in phrases)—in the room, on the chair, with a book, into the box, of the house, from the window, by the chair, up the hill, down the hill, etc.

Sentence beginnings—

(1) With pronouns and verbs *to be* and *to have*—

I shall, he is, she was, he will, I have, it has, we have, you are, we were, they have, etc.

(2) With introductory forms—

There is, there are, there was, there were, here is, that is, this is, there are, there are, etc.

(3) With verb forms—

I see, he saw, she went, we came, they gave, they went, ran, etc.

Phrases of time—one day, last night, this morning, today, to-morrow, one night, yesterday, one afternoon, on Sunday, on Monday, at noon, etc.

Words having similar endings—light, bright, sight, tight; could, should, would; all, ball, call, fall, small; may, day, play, say, pay; down, town, brown.

Simple homonyms—no, know; road, rode; here, hear; etc.

Consult Gates' lists for other suitable material.

RECOMMENDED SPELLING BOOKS

1. *Work and Play with Words*; Wright and Parkinson—Macmillan Co. (45c)
This book has some good suggestions for the teacher.
2. *The Canadian Speller*; Quance—W. J. Gage Co. (30c)
The word-lists in this book are based on very extensive research.
3. *Spelling for the Grades* (IV to VIII)—W. J. Gage Co.
(To be had from the School-Book Branch.)

Standard of Attainment in Language Resulting from its Use in the Social Activities:—

Oral.

1. The ability to use polite speech; e.g., *please, thank you, good morning, excuse me, I beg your pardon.*
2. The ability to use the following correct forms of speech: *I saw, I did, I shall, he does, it isn't, you were, I have, may I?, I have seen, I have gone, I came, I have come, I have drawn, I have written, Mary and I, they are, there are.*
3. The ability to recognize and use the sentence unit.
4. The ability to say the speech sounds correctly in words.
5. The ability to assemble thought units into stories of three or four sentences.

Written.

1. The ability to write correctly from two to four sentences, previously spoken about a topic; and a friendly letter in simple but correct form.
2. The ability to use the correct end marks in written sentences: a period, a question mark.
3. The ability to use capital letters for names of people; names of places; beginning of sentences; beginning of a line of poetry; names of days of week and months, if needed.
4. The ability to write correctly the most frequently occurring words in pupils' written expression of thought. The words and phrases included under "Word Study" above are considered necessary for written work.

DIVISION II

INTRODUCTION

The purpose of the formal language work in Division II is to train the pupil to express himself effectively in speech and writing before the school group. Boys and girls are usually eager to express their thoughts, and to play an acceptable part in the life of the school. The teacher may increase the desire for effective expression by—

Putting the pupil in the way of finding out interesting things to tell;

Urging him towards creative effort;

Providing an appreciative audience;

Giving him a taste of success;

and especially by providing social situations which demand effective expression. In this division such social situations as the following suggest themselves:

Speech: Answering questions in class; reading aloud; reciting a verse; telling an anecdote or story; taking part in a play; making a report; describing something; making a motion in a meeting; convening a committee; taking the chair at a meeting; playing host to guests; directing a play.

Writing: Answers to questions; notes, slogans, notices, reports, letters, articles, minutes of a meeting, stories, verses, plays.

In working out the social purposes of an enterprise, pupils of Division II will have occasion to express their ideas orally to the teacher, to the school, to guests, or at the Friday concert or the Christmas concert. Their written work may be published on the bulletin board, on the display curtain, in the enterprise booklet, in the school newspaper, in the local newspaper, or at the school fair. Some of the pupils may undertake to correspond with pupils in other places.

Techniques Required:

To acquit himself creditably in these social situations, the pupil requires the following techniques:

Mental: The ability to—collect several ideas about a topic; criticize these for pertinency and interest; select the best of his ideas; arrange them in a suitable order.

Oral: Erect posture without mannerisms; use of a clear, pleasant voice; power to make himself heard; ability to speak in complete sentences; correct grammatical usage; ability to put together five or six sentences, pertinent, interesting and naturally arranged, to form a paragraph.

Written: Ability to use—legible writing; accepted forms of sentence and paragraph; correct grammatical forms; capital letters and punctuation marks; an adequate writing vocabulary (spelling).

THE ORGANIZATION OF THE DIVISION

As language is an expansional, not a progressional, subject, it should be possible for the teacher, in the one-room school, to take the language work with the pupils of Division II in one group. Ability in language is, less even than ability in other subjects, the result of age, or of the length of time spent in school. It is, more even than ability in other subjects, the outcome of individual gifts and of home training. Junior children are frequently equal, or superior to senior ones in this field. The details of the course have, therefore, been set out below in a cycle of three years of approximately equal difficulty. It is suggested that the teacher should teach these groups of material in turn, providing for individual differences by demanding a higher standard, in quantity and quality, from his good pupils, whether they be junior or senior.

TYPES OF LANGUAGE WORK

The work will consist of a comparatively small number of formal lessons in which the teacher presents to the class a model of some language form, the form and use of which he explains; and of a large number of practice lessons in which the pupils imitate the model and practise the use of the forms which have been taught. The formal language work should be closely associated with the course in Social Experiences, which should provide motivation and be a test of results.

GENERAL ORGANIZATION OF MATERIAL

Practices to be taken with the group regularly throughout the three years.

1. Thinking Practice.

Collect several ideas about a topic on the blackboard; criticize these for pertinency and interest; select the best; arrange in order for oral or written expression. (The composition need not be completed.)

Have pupils practise the same exercise individually, or with partners.

2. Speaking Practice.

Daily speech training exercises should be taken with the whole school together. In this division, the pupils are learning to speak to the whole school; the teacher should, therefore, for this group, stress those speech training exercises which develop the voice and make it carry. *Exercises of the following types should be used, for the details of which see the section entitled, "Speech Training, Verse Speaking and Choral Speech":*

Deep breathing and breath control.

Resonance exercises.

Jaw and lip exercises.

Speaking vowels with open throat.

Enunciating ending consonants distinctly.

Give single sentence drills; choose a topic and have each pupil prepare and give a sentence on the topic. Work for correct forms and pleasing structure. Criticize the speaker also for posture, voice, delivery.

Give correct usage drills.

3. Word Study.

(a) *The Thinking Vocabulary.* (Words the pupils understand when they see or hear them.)

The pupil enters Division II with a minimum vocabulary of 1,500 words. He should leave it with a minimum of 5,000. During this period, boys and girls

are increasing their stores of ideas very rapidly by observation, by experience and by reading widely. As new words are both the source and the outcome of new ideas, it has been customary to suggest a variety of more or less mechanical devices for increasing the pupil's word stock. Experience proves, however, that the enterprise provides amply for both increase of word stock and enrichment of meaning. It is therefore suggested that the pupil in Division II be taught how to use the dictionary and then left to build up his vocabulary in the natural way.

(b) *The Speaking Vocabulary.*

Enterprise work may be relied upon to provide for the natural growth of the pupils' word stock.

The speech training course is designed to give specific training in the use of the speaking vocabulary.

(c) *The Writing Vocabulary. (Spelling.)*

All spelling should be studied as the result of needs discovered in connection with the written expression. It should, in Division II, be studied by the pupil rather than taught by the teacher. Give the group a suitable number of instruction lessons on how to learn to spell a word and, thereafter, require them to learn the spellings for themselves.

Technique for learning to spell a word:

Look at the word carefully, syllabling it; say the word; think how it is spelled, looking at each letter in turn; write the word without looking at the copy; check the written word with the copy (if it is incorrect, begin again, repeating the steps); use the word in a sentence, or think its meaning.

Have the pupils memorize the steps: See it; say it; think it; write it; check it; use it.

Procedure recommended.

First Day: Give a word study lesson in which a group of related words is collected, and studied for pronunciation and meaning. Give a pre-test on this list.

Second, Third and Fourth Days: Pupils study the words which they spelled wrong in the pre-test, using the technique suggested above.

Fifth Day: Re-test. If necessary, repeat this procedure.

N.B.—See the list of "*Recommended Spelling Books*"—Division I.

Forms to be taught in Division II.

The Gates Fifteen-Hundred Word List will be found useful as a reference for many of the forms mentioned below.

THE ONE HUNDRED WORDS IN THE SPELLING OF WHICH ERRORS ARE MOST FREQUENT

which	women	country	busy	grammar
there	done	February	built	minute
their	here	know	color	any
separate	hear	could	making	much
don't	write	seems	dear	beginning
meant	writing	Tuesday	guess	blue
business	heard	wear	said	though
many	does	answer	having	coming
friend	once	two	just	early
some	would	too	doctor	instead
been	can't	ready	whether	easy
since	sure	forty	believe	through
used	lose	hour	knew	every
always	lose	trouble	laid	they
where	Wednesday	among	tear	half
break	week	piece	hoarse	truly
buy	often	raise	shoes	sugar
again	whole	ache	to-night	straight
very	won't	read	wrote	choose
none	cough	said	enough	tired

Common nouns to be written with small letters.

Proper nouns to be written with capitals.

Verb forms in sets of three: give, gave, given; go, went, gone; lie, lay, lain; drive, drove, driven.

Common contractions: I'm, I'll, it's, I've, we'll, I'd, she'd, they're, we're, what's, you're, can't, won't, don't, doesn't, etc.

Singular and plural pairs.

Masculine and feminine pairs.

Homonyms: ate, eight; pair, pear, pare, etc.

Comparatives: good, better, best; pretty, prettier, prettiest.

Possessives: involving apostrophe and s, also involving s and an apostrophe.

Derivatives: walk, walked, walking, walker, etc.

Prefixes: list of common words with each prefix.

Suffixes: list of common words with each suffix.

Pronouns: they, their, these, those, which, whom, whose, myself, himself, herself, yourselves, themselves.

Common adjectives: each, every, light, pretty, right, another, beautiful, enough, hundred, hungry, afraid, careful, certain, different, either, neither, general, pleasant, polite, several, silver, square, smooth, strange, straight, sudden, terrible, thirsty, thousand, tight, wise, wrong, young.

Common adverbs: again, always, around, before, never, together, where, across, against, almost, alone, along, behind, beside, between, enough, o'clock, to-day, to-night, to-morrow, sometime, yesterday, upstairs, after-

ward, already, early, indeed, instead, maybe, perhaps, quite, rather, really, since, within.

The Common Spelling Rules:

1. When a suffix beginning with a vowel is added to a word of one syllable that ends in a single consonant preceded by a single vowel, the final consonant of the word is doubled.

Example: *stop—stopped*.

2. When a suffix beginning with a vowel is added to a word of two or more syllables that ends in a single consonant preceded by a single vowel and is accented on the last syllable, the final consonant of the word is doubled.

Example: *occur—occurred*.

3. When a suffix beginning with a vowel is added to a word of two or more syllables that ends in a single consonant preceded by a single vowel but is *not* accented on the last syllable, the final consonant of the word is *not* doubled.

Example: *profit—profited*.

N.B.—In the case of a few words, such as *travel* and *worship*, either Rule 2 may be followed or the final consonant may be doubled: *travel—traveled* or *travelled*.

4. When a suffix beginning with a vowel is added to a word ending in a silent *e*, the silent *e* is dropped.

Example: *strike—striking*.

5. When a suffix beginning with *i* is added to a word ending in *ie*, the *e* is dropped.

Example: *lie—lying*.

6. Put *ei* after *c*, and *ie* after *l*, except in *leisure*.

Examples: *receive* and *believe*.

7. When a suffix is added to a word ending in *y* preceded by a consonant, the *y* is usually changed to *i*.

Example: *easy—easily*.

8. When *all* is used as a prefix, and *full* as a prefix or a suffix, one *l* is dropped.

Examples: *already*, *fearful*, *fulfill*.

Note.—These rules are for reference only. They are not to be memorized formally by the pupils. It is very difficult to frame simple rules for the spelling of English words.

4. Sentence Study and Practice.

- (a) *Stress sentence unity* by constant reminders that a sentence must express one principal thought. Criticize the ideas in the pupils' sentences for pertinency and for interest.

Work for the elimination of the unnecessary *and* and *so*. Have the pupils avoid a drop in the voice at the end of each statement.

- (b) *Increase the interest of the pupils' sentences* by work in which they are required to express original thoughts. Examine interesting sentences with the class. Have the pupils try to enlarge their sentences by the use of interesting descriptive words. Criticize the beginnings and endings of pupils' sentences with respect to interest.

- (c) *Improve the form of the pupils' sentences* by work in which they study to give their sentences a pleasing sound through care in the choice and arrangement of words.

Recognition of the three kinds of sentences: statement, question and command; use of proper end marks for these.

Recognition of the two parts of the sentence: subject and predicate.

5. Story Study and Practice.

- (a) *Stress Story Unit* by examination of model stories to show unity of thoughts; parts: beginning; middle (climax); end; the right ordering of sentences.

Criticism of topics of pupil's stories: Is the topic one which can be dealt with in a few sentences?

Study to give each story a beginning, middle (climax), and end. Criticize these parts for interest.

Study to arrange the sentences in story order. What happens first? What happens next? Etc.

Much practice in reproducing short, concise stories; for example, *Aesop's Fables*.

- (b) *Increase the interest of the pupils' stories* by having them examine stories in the readers to find out what makes the stories interesting.

Have a pupil choose for his original story a topic about which he can tell something that no one else in the class knows; something that he has observed, or read, or thought out for himself. This will ensure interest.

Have the pupils introduce some little effect of climax into their stories by arranging their sentences in such a way as to lead up to the point of greater interest. This will also ensure good order.

- (c) *Improve the telling of the story* by criticizing the posture, voice and enunciation of the pupil, according to the standard in oral composition set for the class.

Require the pupils to criticize their written stories according to the standard set for the class; to correct them, and, if necessary, to re-write before submitting them.

Refuse to accept untidy writing, and the incorrect spelling of common words.

Require the correct placing of the title, margin and indentation; and the correct use of the capital, and of the sentence end marks.

6. Paragraph Study and Practice.

It is the special purpose of the language work in Division II to train the pupil to use the paragraph as the unit of his speech and writing.

- (a) *Teach the paragraph* by examining model paragraphs to show that each has all its sentences about one topic.

Study topics suitably short for oral and written paragraphs. Collect, select and arrange ideas for paragraphs, oral and written.

Have the pupil practice planning a paragraph and then giving it orally or in writing. Use both reproduced and original paragraphs.

Criticize the pupils' paragraphs for unity, order and interest.

- (b) *Teach the letter*—friendly, business, and social. The pupils in Division I have been taught to write a very simple form of letter without heading, date, or complimentary close. It is an important part of the work of Division II to teach the correct forms of friendly, business, and social letters. For practice purposes it is probably best to use the single paragraph letter.

- (c) *Other paragraph forms* which should be taught and practised in this division are the following:

The report, in which the pupil, having collected material on a topic from several sources, organizes and arranges it for oral or written expression.

The written answer to questions, to be worked out in connection with the silent reading lesson.

The minutes of a meeting, of which the proper form and order are to be taught.

A THREE-YEAR CYCLE IN LANGUAGE

Instead of the foregoing general outline in Language, teachers may prefer to use the following three-year cycle. The work of this cycle is to be taken in three successive years, and in each year with all of the pupils of Division II.

"A" YEAR

Forms:

Oral:

The Sentence.—Right expression for assertive, interrogative, imperative; use of complete sentence when speaking in a meeting, and in asking and answering questions.

The Paragraph.—Definition and form; use in giving talks and in telling stories.

The Longer Composition.—Distinguish three divisions: how it began, what happened, how it ended. Use in telling stories and in three-scene dramatizations.

Written:

The Sentence.—Forms of the three kinds; use to strengthen pupil's feeling for completeness in a sentence.

The Paragraph.—Same material as for oral work.
The Letter.—Simple forms of social letters of invitation, request, thanks, apology; addressing envelope.
The Longer Composition.—Short story in three parts.

Equipment:

Thinking.—Collect thoughts about a topic; select those which are pertinent; arrange in the story order.
Reading.—Collect useful facts; that is, facts pertinent to the topic being studied.
Records.—The note, in complete sentence form, to be made after reading, with books closed.
Vocabulary.—Nouns, common and proper; christian names and surnames; days of week, months; verbs which give power and interest to the sentence; number words, gender words.
Dictionary.—Alphabetical order; choice of meaning for context.

Mechanics:

Speech.—Exercises for posture, open mouth, open throat, resonance, lips; sounds for resonance: *m-n-ng-r-l*; the vowels; the beginning consonants: *t, th, d, p, wh*.
Usage.—Drill on the correct forms for use in the past tense: *saw, seen; did, done; gave, given; lay, laid; sit, sat*; etc.
Spelling.—Teach the technique of learning to spell a word; test on the hundred spelling errors, and teach words mis-spelled; common nouns; proper nouns; verb forms; abbreviations; days, months; Mr. and Mrs.; street, avenue, company; etc.
Capitals.—Beginning of sentence, lines of verse, proper names; titles of stories, books, etc.; names of days, months; names of the Deity; pronoun *I*.
Punctuation Marks.—Period, interrogation and exclamation marks, as required for the letter.

“B” YEAR

Forms:

Oral:

The Sentence.—Right expression for assertive, interrogative, imperative; teach use of complete sentence in carrying messages and in giving directions.
The Paragraph.—Definition and form; use in giving reports and descriptions.
The Longer Composition.—Distinguish three divisions: how it began, what happened, how it ended; use in telling stories and in three-scene dramatizations.

Written:

The Sentence.—The parts; teach subject, predicate, object, to strengthen pupil's feeling for sentence completeness.
The Paragraph.—Same material as for oral work.

The Letter.—Simple forms of business; order, acknowledgment.

The Longer Composition.—Three-scene dramatizations.

Equipment:

Thinking.—Collect thoughts about a topic; select those which are pertinent; arrange in order for description.

Reading.—Gather the general significance of the passage.

Records.—The synopsis; the outline of main heads.

Vocabulary.—The pronoun; possessives; comparison; derivatives, prefixes and suffixes; use in word building.

Dictionary.—Synonyms, antonyms, homonyms.

Mechanics:

Speech.—Exercises for posture, resonance, relaxation, lips. Sounds for resonance: *m-n-ng-r-l*; the ending sounds: *g, d, p, t*; etc.

Usage.—Forms involving singular and plural, and agreement of subject and predicate; as, *is, are, was, were*. Correct use of pronouns: subject pronouns: *I, we, you, he, she, it, they*; object pronouns: *me, us, you, him, her, it, them*. Drill on the use of *he* and *I*; e.g., He struck her and me; It is *I, we, he, she*; etc.

Spelling.—Teach the technique of learning to spell a word; test on the hundred spelling errors; teach lists of common synonyms, antonyms, homonyms, possessives (singular and plural), comparatives, lists of words with common prefixes and suffixes.

Abbreviations.—Street, avenue, company; foot, yard; etc.

Capitals.—Titles of persons: captain, major, duke, etc.; special days.

Punctuation Marks.—Comma in series; to set off the nominative of address, as required in a letter.

"C" YEAR

Forms:

Oral:

The Sentence.—Right expression for assertive, interrogative, imperative; use in conversation.

The Paragraph.—Definition and form; use in giving an explanation.

The Longer Composition.—Distinguish three divisions: how it began, what happened, how it ended; use in telling stories, giving three-scene dramatizations; reading and reciting the story of a poem.

Written:

The Sentence.—The phrase for description, the clause for explanation; use of *who* and *which* clauses.

The Paragraph.—Same material as for oral work.

The Letter.—The friendly letter to be clear, courteous and entertaining.

The Longer Composition.—Three-part story, three-scene dramatization, the longer poem.

Equipment:

Thinking.—Collect thoughts about a topic; select those which are pertinent; arrange for explanation.

Reading.—Predict outcomes.

Records.—The summary (outline of main heads and sub-heads).

Vocabulary.—The remaining parts of speech: adjectives, adverbs, prepositions, conjunctions, interjections.

Dictionary.—Rules for pronunciation.

Mechanics:

Speech.—Exercises for posture, resonance, tongue; the remaining beginning and ending sounds; diphthongs: *ow, oy, ai, oh, ay, er.*

Usage.—Forms involving the correct use of adjectives, adverbs, prepositions and conjunctions; as, *surely, not sure; badly, slowly*, etc. (Prepositions give special trouble to the foreign-born.)

Spelling.—Teach the technique of learning to spell a word; test on the hundred spelling errors; teach the adjectives and adverbs given in the Fifteen-Hundred Word List by Gates; lists of words illustrating the common spelling rules; abbreviations; common contractions: *I'm, I'll*, etc.

Capitals.—Proper adjectives and adverbs.

Punctuation Marks.—Quotation marks, comma in quotation marks, comma to set off introductory words, phrases and clauses.

Writing

DIVISIONS I AND II

INTRODUCTION

Writing is a fundamental subject in any elementary school curriculum; for even in this mechanical age, typewriting has not banished completely the need for fine individual penmanship.

The aim of this course is adequately to train pupils that at the end of the sixth grade they may be able to write easily and legibly at a *speed of approximately sixty letters per minute*. The pupil must be taught the fundamental strokes of all the letters of the standard alphabets so that he is able to write them correctly. Correct writing position must be taught, and habituated, so that the pupil assumes naturally a good posture whenever he is called upon to do any written work.

The teacher should be able to demonstrate correct letter form, to analyze a letter, and to show the basic curves and lines of which it is composed. He must be proficient in diagnosing the special weaknesses of individual writing as well as those of a class as a whole; and at the same time he must know what to suggest as remedial treatment. Again, he must know the age-norms and grade-norms of attainment with reference to speed and quality.

The time to be spent on the teaching of writing depends upon the needs of the class. A short daily practice period meets the average requirements. The slower-learning pupil requires more individual attention, longer practice periods, and more remedial work, than other pupils. The writing period should come early in the day, and should not follow immediately a play period or a physical training exercise.

Formal practice, that is a lesson in which a repetition of the same thing goes on without any enthusiasm or desire to improve, is useless. The pupils must be taught to criticize their work and know how to improve it. Teachers need to know how to stimulate a class to the highest degree so that

the pupils always do their very best work. *Carelessly written work should not be accepted at any time. All written language work should be closely supervised by the teacher.*

Remedial Treatment.

I. *Left-handed* pupils cause much worry and anxiety to a teacher. It is recommended that these pupils be dealt with in a scientific manner, which will determine as completely as possible whether the left-handedness is deep-seated, or merely the result of accident. If investigation proves that it has been acquired accidentally, the teacher should have no hesitation in applying immediate remedial treatment. If, however, the left-handedness is found to be congenital, the adjustments necessary for a left-handed pupil must be taught and constantly required. There are many cases known to the average teacher where a change has been established from left to right-handedness without any great difficulty other than the confusion caused by preliminary adjustments.

The following are suggestions for dealing with left-handedness:

1. Consult the parent to determine if possible whether or not the child is naturally left-handed.
2. Ask the pupil to perform little tasks that will indicate a preference for the right or left hand.
3. When it has been determined that the pupil is not congenitally left-handed, secure the assistance of the parent in administering the appropriate remedial treatment; which is as follows:
 - (a) Prevent in so far as possible the use of the left hand.
 - (b) Assign a considerable amount of blackboard writing, preferably in short periods and with large characters.
 - (c) Assign exercises in which large writing, not confined to lines, is to be done at the desk.
 - (d) Give more than the average amount of encouragement to the pupil.
 - (e) Change gradually from this special treatment until the pupil finds his place with the rest of the class.

The true left-handed children (and children who do not wish to change from left-handed to right-handed writing) should be dealt with as follows:

1. Reverse the correct right-handed position.
2. Allow freedom in position at the desk, since the pupil must write at a desk lighted for the right-handed child.

II. The majority of the other writing troubles are directly attributable to the following causes:

- (a) Poor desk adjustment.
- (b) Poor quality of tools and material.
- (c) Incorrect writing position.
- (d) Heavy pen pressure with an undue amount of finger writing.

Desk Adjustment.

Adjust the seat so that the pupil can comfortably touch the floor with the soles of the feet.

The front edge of the seat should be under the desk approximately two inches.

The height of the desk should be adjusted to the individual pupil.

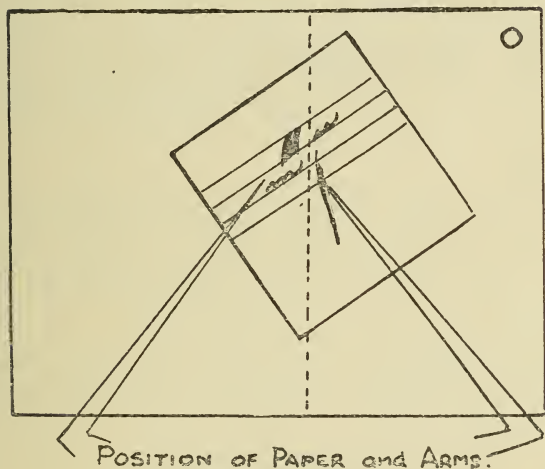
Ask the pupil to turn sideways in his seat and bend his arms upwards at the elbow. The front edge of the desk should then be placed about two inches above the elbow joint.

Blackboard writing is very definitely a great help in cultivating the art of writing. It must be taught properly if the full benefit of its advantages are to be secured. By blackboard work one can develop the form of letters, easy execution, and freedom and rhythm of movement. Slow, painful writers find blackboard practice very helpful.

The method to adopt is that of first securing good posture. Instruct the pupil to stand solidly, with his feet twelve inches apart, and the body at a distance from the blackboard equal to the length of the arm when the fist is closed.

Have the pupil use half a stick of chalk, held so that it is pointed to the palm of the hand. Then begin work on movement exercises to develop control and confidence. Have the pupil trace over the correct forms of letters that have given him difficulty. Have him write letters, words, and sentences, and criticize his work for all the common errors of penmanship. Make every effort to arouse the enthusiasm of the pupil so that he will strive to correct his mistakes. Follow this with seat work in order that there may be a transfer of learning from the blackboard work to the writing done at the desk.

When blackboard space is at a premium the teacher may secure heavy cardboard from heavy packing cartons and give it a treatment of flat black paint, or even use the surface unpainted. Cut this to a satisfactory size to fit the desk. Writing on this cardboard is a good substitute for the large free work done at the blackboard.



POSITION OF PAPER and ARMS.



POSITION OF FORE-ARM, HAND and PEN .

Care of Blackboard.

In many class-rooms the blackboards have acquired defects which limit their usefulness and cause serious eye-strain to pupils. Blackboards can, and should, be kept in perfect condition indefinitely.

“Breaking-In” a Blackboard.

A new blackboard, or one recently re-surfaced, should be broken-in properly; otherwise the first chalk-marks will continue to show despite all efforts to erase them.

1. Cover entire surface with chalk, using the side of the chalk-stick. With an eraser spread this chalk coating lightly to cover the whole blackboard.
2. Use a *clean, dry eraser or cloth* to remove chalk, following with another *dry cloth or chamois*.

The above treatment removes the thin surface film of paint binder and gives a slightly grey surface which is free of “shine” and easy to clean in daily use.

Daily Care.

Never wash blackboards or allow any water, oil, plasticine, gum, ink, wax, or any other liquid to touch the blackboard.

The reason: Chalk crayons contain some glue, necessary for keeping the stick form. When this glue comes in contact with a moist surface, a glossy film is formed, causing the well-known “shine” which renders large portions of blackboards useless for pupils in many parts of the class-room.

Use only clean, dry cloths or erasers; keep water away.

Re-Surfacing.

1. Clean the blackboard, two or three square feet at a time, with “Bon Ami” or other *greaseless* cleaning material. Use only sufficient water; if too much is used some will soak into the blackboard and ruin it.
2. Rub with steel wool until the surface is smooth and clean.
3. Apply a reliable re-surfacer, following the manufacturer’s instructions carefully, and allowing each coat to dry thoroughly.
4. When thoroughly dry, *break-in* the surface as above, having this done *before school opens*, and in any case *before anyone has a chance to write on it*.

The above instructions apply to all blackboards of the composition type, such as Hyloplate, etc.; and asbestos type, such as Sterling, Asbestoslate, etc. For instructions respecting other types such as those made locally from gyproc, stone-board, or beaverboard, write to the Department of Education.

THE COURSE IN WRITING

The course in writing passes from print writing in the first two grades of Division I to cursive writing in Grades III to VI of Division II. This development is based on scientific

investigations, by means of which it was found, for example, that pupils write more easily, more rhythmically and with greater speed in the lower grades if print writing is used. Moreover, print writing assists in learning to read and to spell; and if the change to cursive writing takes place at an early period in the child's life, no material disadvantage in writing is to be found.

Grades I and II.—Print-Writing.

The aim of the print writing for Grades I and II is to develop a means of expression on a par with the development in other school subjects of these grades.

The materials to be used in such advancement are blackboards, chalk, large sheets of paper (newsprint), crayons, lead pencils (Dixon's No. 2). Blank paper is suggested for beginners. Ruled paper with lines one inch apart and interspaced with one-quarter-inch ruling may be used for smaller writing.

The Method.—The elements of print writing, which are straight strokes and curves, must be taught first before any writing is possible.

Small letters. Suggestions for procedure:

1. Short straight stroke—development of *i*.
2. Longer straight stroke—development of *t*, *l*.
3. Small curve stroke—development of *r*, *h*, *f*, *m*, *n*, *u*, *j*.
4. Circle, counter-clockwise—development of *o*, *c*, *e*, *a*, *d*, *g*, *q*.
5. Circle, clockwise—development of *b*, *p*.
6. Combined curves, for *s*.
7. Slanting strokes, for *v*, *w*, *x*, *y*, *z*, *k*.

Capitals.

- I, L, T, H, F, E,
- A, V, N, M, W, K, X, Y, Z.
- O, Q, C, G, S.
- B, P, R, D, U, J.

This order of teaching the letters is not necessarily a rigid requirement. The teacher may find in a particular class that just as good results are secured by teaching curved letters first, and straight-stroke letters of different lengths after good curves have been produced.

Posture.—See the Introduction.

Hand position.—See the Introduction.

Suggestions.—Use the blackboard and large sheets of paper for beginners' lessons. Gradually decrease the size of writing as the pupils gain facility in this mode of expression. Emphasize an easy handling of the pencil—a loose grip. Have the pupils write with a light pressure in order to produce lines that are not too heavy. Because the child is keenly interested in writing words and messages, it is advisable as soon as possible to work from the word and sentence to the letter rather than to follow the reverse order.

STANDARD ALPHABETS FOR GRADES I AND II

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMN
 OPQRSTUVWXYZ

ATTAINMENTS

Letters.

Beginners—1, 2, 5.

End of Grade I—3, 4, 6.

1 A C M D

2 a b c m k

3 A B C D E F G H I J

4 a b c d e f g h i j k l m n o

5 robin mouse

6 robin mouse ice buy

Grade II.

One two button my shoe
Three four shut the door

Numbers.

Beginners.

2 3 4 5 6 7 8 9 0

Grade I.

1 2 3 4 5 6 7 8 9 0

Grade II will write these 3/16" high.

Grades III to VI.—Cursive Writing.

At the commencement of Grade III the pupil begins training in the art of writing with fluency and ease. The letter forms will have to be modified so that this may be done, and the pupil will have to develop a movement which will allow him to progress across the page at the same time as he writes this letter. This joining of letter forms is not easy for a beginner, and much instruction and practice is therefore necessary to ensure that at the end of Grade VI the pupil will be able to write in a smooth, flowing hand.

Grade III.

STANDARD ALPHABETS FOR GRADES III-VI

A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q
r s t u v w x y z 1 2 3 4 5 6 7 8 9 0

Materials: pencil, paper (half-inch spaced), blackboard chalk, pen and ink. A cork-tipped penholder is best, fitted with a steel pen nib, having a medium point. Spratt's Number 2 is satisfactory. A dark, smooth-flowing ink is desirable.

From the end of Grade III all writing is done with pen and ink, provided the pupil is sufficiently developed in skill to warrant the change.

Method.—Begin work using large characters: capitals one inch high; small letters, half an inch. A reduction in size to half-inch capitals and small letters one-sixth of an inch in height should be reached by the end of Grade IV (vertical height).

For Grades V and VI the spacing should be three-eighths of an inch for capitals, and one-eighth of an inch for small letters.

Slant of writing.

A good slant at which to aim is from twenty to twenty-five degrees from the vertical.

Position.—See the Introduction.

Hand position.—See the Introduction.

Movement and exercises.

A complete free-arm movement is not attainable by the majority of children at the end of Grade VI. The teacher should, however, aim at this goal and endeavour to eliminate as much finger movement as possible. Rhythmic exercises should be used to develop speed and the joining of letters. Counting may be used to facilitate rhythm. Tracing and re-tracing of correct letter forms not only develops good form but assists in the easy, rhythmic writing of them.

Criticism of work.

Pupils should be taught from the beginning of Grade III to criticize systematically their writing by use of the diagnostic method, which involves the following points:

1. Evenness of slope.
2. Line quality—weight of line and smoothness.
3. Correct alignment—correct letter proportion.
4. Correct letter form.
5. Proper spacing.

Page arrangement, neatness, and size of writing should also be included in this criticism.

A carry-over from the formal penmanship lesson to the writing in all other subjects is to be required and insisted on. The pupil's best work is to be demanded at all times.

Content of course.

Definite standard alphabets are to be taught throughout this division, based on the three-unit principle, and taught in groups. Capital and small letters are grouped in accordance with the common features of the "form".

Grouping of letters and figures.

1. One unit—i, u, w, e; a, c, o; m, n, v, x, s, r.
2. Two units—t, d, p.
3. Three units—l, b, h, k; j, g, y, z, q.
4. Five units—f.
5. Figures—1 4 7, 0 6 9, 2 3 5, 8.

Grouping of capitals. (Three units above base line.)

1. O, A, C, E.
2. P, R, B.
3. M, N, Q, U, V, W, X, Y, Z, H, K.
4. T, F; L, D; S, G; I, J.

The words and sentences taught should be closely correlated with enterprise projects. Enthusiasm can be secured and held if good alternative letter forms are allowed after a good standard alphabet has been perfected. See the teachers' reference books for suggestions.

Grading of writing.

Handwriting achievement is measured by determining the rate with which the pupil writes, and the quality of the writing produced. The rate of writing is determined by having the pupil write a suitable sentence or paragraph that he has memorized, or which he has written several times. Pupils are required to write for two or three minutes. To measure the quality of the writing, use one of several available scales—Ayres, Thorndike; and to find the speed, divide the number of letters written by the time taken in writing them.

The following standards of attainment are considered to be normal for the grades specified:

GRADE	AYRES SCALE	
	QUALITY	SPEED
III	39	44 letters per minute
IV	46	51 letters per minute
V	50	60 letters per minute
VI	57	63 letters per minute

The teacher should also be familiar with the Freeman Diagnostic Scale. This scale may be used to discover the pupils' errors. When the errors have been found, remedial treatment should be given.

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Arithmetic

INTRODUCTION

ARITHMETIC IN THE CURRICULUM

The following statement was prepared by the Committee on Elementary Education of the New York Council of Superintendents. "It is the function of the public elementary school to help every child:

1. To understand and practice desirable social relationships.
2. To discover and develop his own desirable individual aptitudes.
3. To cultivate the habit of critical thinking.
4. To appreciate and desire worthwhile activities.
5. To gain command of the common integrating knowledges and skills.
6. To develop a sound body and normal mental attitudes."

"Each field of instruction must make its contribution toward that total programme. Each subject field must serve a two-fold function. It must contribute to the more general and intangible outcomes as well as to the specific outcomes of that particular study. Arithmetic functions most specifically with reference to two of the objectives, namely, the common knowledges and skills and critical thinking. One of the chief responsibilities of the elementary school is to impart the common integrating knowledges and skills. There is hardly a single act of human endeavor that does not have its quantitative side.

"The vehicle through which the education of children takes place, in its larger sense, is the school curriculum. This Course of Study presupposes that there is a definite body of arithmetic knowledge and skills that may be selected in advance to be learned. The Committee believes that while the activity or enterprise programme may serve to give the pupils significant meaning and purpose, the functional experiences of childhood are alone not adequate to develop arithmetic skills. While it is believed that whenever the situation functionally calls for arithmetical solution, it naturally comes into the enterprise, yet, in the main, the teacher must seek to find or to stimulate the children's interests which will demand the arithmetic content that has been selected for the year, and to develop these interests into activities largely for the purpose of giving meaning and readiness to the arithmetic lesson. From grades two to six, formal systematic daily arithmetic which follows a course of study must govern the selection and

initiation of activities to motivate the work. Once meaning is established, drill and exercise follow to fix permanently these learnings. The teacher must provide sufficient periods of practice to assure mastery.

"It has been recognized that mere repetition of examples in a process is not an adequate basis of drill. The modern child-psychology movement, with its emphasis on the importance of meaningful, purposeful experiences on the part of the pupil, has resulted in the elimination of many of the faulty kinds of routinized practice on processes. The really worth-while drill is that which takes place in its natural setting.

"There are two major purposes of drill, namely, drill to build a skill and drill to maintain a skill. In applying drill to build skill care should be taken that all pupils understand the procedure of the new skill. Unless each pupil has the correct method of procedure, he will be practising errors. If many opportunities for use in practical and correlated situations are given, less of the dry, formal drill will be needed.

"The interval between drill periods should be short at first and gradually lengthened as the skills become more permanent. To secure permanent retention drill must be provided at recurring intervals throughout the school course. Teachers should not concentrate too much on the practice at the time of first learning. Forgetting is a natural outcome if the skills have not been kept alive by a small amount of practice in the interim. Permanence of learning is possible only at the price of frequent re-learning. Frequent short drills are superior to a few long ones.

"All types of drill should be individualized as far as possible, so that each pupil will receive practice upon the specific phases of a process which he has not yet mastered permanently. He should not be required to participate in repeated drill upon a skill which he already has mastered fully. There is no excuse for having all pupils participate in a drill because some of them need it.

"Undoubtedly, there are many aspects of arithmetic taught much too early—before the meaning and need have been experienced by the pupils. With this in mind, the Committee is following sound pedagogical practice in raising the grade level one grade above the previous levels in use in Alberta. The maturation of the insight and the interests of children at various ages must determine the selection of skills to be learned and their grade placement.

"No single recommendation for the grade placement of topics can do justice to all children found in a grade. There is a wide variation in ability and attainment within a single class group. A syllabus such as this can only outline briefly the general areas of experience which are thought desirable for pupils to have at different levels. There will be continuous need for the teacher to give intelligent interpretation to the topics suggested. It must always be remembered that sub-

ject-matter serves only as a vehicle through which we assist, direct, and encourage the development of growing minds. It is important that each teacher, at the beginning of each term and as frequently thereafter as necessary, utilize inventory and diagnostic tests to discover the level of development of each child, as well as his particular weaknesses in arithmetic, and then begin teaching him at the point where his present knowledge stops. In one-grade rooms, the teacher must study her group, perhaps divide it into several smaller divisions according to ability and achievement in arithmetic, and adjust the work for each division according to the needs and abilities of the pupils. Standards should be established and looked upon as stepping-stones on the road toward the goal to be striven for, which is a perfect score. To reach X standard is satisfactory for some pupils, and to reach Y standard may be considered satisfactory for others.

"It is hoped that every teacher, irrespectively of the grade taught, will make himself thoroughly familiar with these sections introductory to the course as a whole, and to each grade allotment, so that they may serve to integrate the work throughout the schools of the province, and from grade to grade. Every teacher should make himself thoroughly familiar with the work of the grades above and below the one he teaches. It is very important that children be not subjected to a radically different method of teaching when they shift from one grade or teacher to another. Procedure should be uniform for all grades, and should employ the methods recommended in this course until further and adequate research points to desirable modifications.

"The complete fraction concept must be built up, step by step". The following stages in the development of the fraction concept are taken from "A Course in Arithmetic for Teachers", by Overman:

1. Limit fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, etc.

(a) Part of a single object: as, $\frac{1}{2}$  $\frac{1}{3}$ 

(b) Part of a group of objects; as, $\frac{1}{2}$  

(c) Comparison of two single objects, as, 1 pt. = $\frac{1}{2}$ qt.
One object $\frac{1}{2}$ as large as another.

(d) Comparison of two groups; as, 000 is $\frac{1}{2}$ as many as 000000.

2. Simple proper fractions: $\frac{2}{3}$, $\frac{3}{4}$, etc.

(a) Part of a single object; as, $\frac{2}{3}$  

(b) Part of a group; as, $\frac{2}{3}$  

(c) Comparison of two objects; as, 2 ft. = $\frac{2}{3}$ yd.

(d) Comparison of two groups; as, 000000 is $\frac{2}{3}$ of 000000000.

3. Improper fractions: $\frac{3}{2}$, $\frac{5}{4}$, $\frac{3}{3}$, etc. Such fractions arise from the work in addition of fractions.

(a) Part of a single object; as, $\frac{4}{3}$ 

(b) Part of a group; as, $\frac{00}{00} \frac{00}{00} \frac{00}{00} = 4/3$ of 6.

(c) Comparison of two objects; as, 20 oz. = $\frac{5}{4}$ lb.

(d) Comparison of two groups; as, 0 0 0 0 0 0 0 is $\frac{4}{3}$ of 0 0 0 0 0 0.

4. Indicated division:

$\frac{12}{3} = 12 \div 3 = 4$. This idea is first met in connection with reducing an improper fraction to a mixed number.

5. Concrete number. A fraction is a concrete number that can be dealt with as any other concrete number:

1 apple + 2 apples = 3 apples.

1 fifth + 2 fifths = 3 fifths.

$\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$.

"The results obtained in common fractions and decimals at the end of the sixth grade do not warrant the time and energy put forth by students and teacher in several years of learning and teaching these two topics. Something is wrong somewhere. The skills required in addition and subtraction of common fractions are too difficult for fourth or fifth grade pupils. The Committee of Seven, after ten years of experiment in fifteen different states and several hundred cities, has proved that this statement is true; and it has also proved that addition and subtraction of common fractions is more difficult than addition and subtraction of decimals.

"If addition and subtraction of decimals, in which there are so few skills to be learned, could replace addition and subtraction of common fractions, in which there are many skills, much of the work in both could be cut down.

Examples:

	By Old Method		By Decimal Equivalents
Add:	$2\frac{3}{4}$	$3\frac{3}{4}$	3.75
	$2\frac{1}{2}$	2	2.5
		$5\frac{3}{4}$	6.25
Sub.:	$34\frac{1}{2}$	34	34.5
	$15\frac{3}{4}$	$15\frac{3}{4}$	15.75
	$18\frac{1}{4}$	$18\frac{3}{4}$	18.75

In the decimal solution of these examples only one new skill is required, that of knowing the decimal equivalents. The remaining work is the same as in whole number addition and subtraction. The chances for making errors are greatly re-

duced in the decimal method and this means that remedial teaching is simplified. Errors are more easily detected.

"Teachers must provide means for keeping the child aware of his progress. This is an important source of motivation. There is pleasure for him in the consciousness of growth. *Class competition in which each pupil competes with all others in the room in an effort to exceed everyone else should be avoided or reduced to a minimum.* It is far better to use individual progress charts through which each pupil can watch his growth and by means of which each pupil can be encouraged to compete with himself, that is, work to improve his own record. The best motivating device consists of individual success. If diagnostic and remedial procedures are utilized effectively, and materials adjusted to the abilities of children, interest and stimulation will prevail and success and progress are likely to be present as well.

"All the child's immediate and future arithmetic needs are in the form of problem situations. The mastery of skills is a means toward preparing the child to meet these needs. A child should be encouraged to do original thinking. He should be challenged to discover the method of working a new problem. If he succeeds, he will gain in confidence and acquire the feeling of resourcefulness. "Can you tell?" is a challenge to him to discover a method. It takes more time than the older method but it is well worth the extra time.

"One of the reasons for low mastery in problem solving is failure on the part of teachers to associate the mechanical processes with the varied vocabulary which the processes carry with them. It is hoped that teachers will widen the understanding of the processes by stating arithmetic expressions in various ways.

"A number fact is valuable as it is put to use in a life situation. The problem is not the life situation; it merely describes a life situation. The duty of the teacher is to translate the problem into the experience of the child. It is futile to solve the problem for the child.

Problem-Solving:

Children can be taught to solve problems successfully if emphasis is placed on the following steps of procedure:

1. Careful reading of the problem. Silent reading by individual pupils may be followed by oral reading of the example by one or two members of the class.
2. The discussion of problem situations, with dramatization if necessary, gives flexible methods of analysis. Sometimes the analysis will be oral. At times it may be graphic, and lines, circles, pictures, etc., may be used effectively. Different pupils prefer different methods.
3. The making of problems by the pupils.
4. The meaning of the four fundamental operations. (See pages 36-44 of "The Development of Problem-Solving

Ability in Arithmetic"; Lazerte—Clarke, Irwin & Co., Toronto.)

5. Listing the various quantities mentioned in the problem, comparing the magnitudes, naming those known and those to be found, and discussing the relations that exist among the several quantities.
6. Stating the process to be used.
7. Estimating answers before beginning the written solution.
8. Solving the problem. The pupil must be allowed to think his way through these solutions. The teacher should supervise, but the pupil must be allowed to do his own thinking.
9. Checking the reasonableness of the answer. This will generally be followed by a careful check to ensure accuracy of computation.

In the lower grades all these steps would not be introduced. In later grades no arbitrary sequence should be imposed. At various times all the above things are done in problem-solving, but with a given problem one would never follow through the sequence step by step.

Remedial work in problem-solving is essential. On pages 133-136 of "The Development of Problem-Solving Ability in Arithmetic", there is a list of thirty-seven remedial exercises in arithmetic. Each teacher may adapt these to the grade level where they are to be applied. The result of using type solutions and of overlooking the necessity for using remedial exercises is exemplified on pages 26, 27 and 28 of the above-mentioned monograph. Diagnostic tests in problem-solving indicate the types of remedial work that should be used.

"In solving a problem it is wise to arrange the work on the page in such a way that the calculation in unsigned numbers is shown. This arrangement gives the teacher the opportunity to diagnose the mistakes of the pupils and to prescribe treatment. Statements should be as brief as possible, yet complete enough that an observer may follow the line of reasoning. It is suggested that the page be divided at approximately two-thirds of its width from the left-hand margin by a vertical line. The statement should be placed to the left, and the calculation to the right of the line.

"Special attention should be given to the problem of helping the pupil to acquire meaningful and reasonably accurate concepts of measure and rules of procedure. The child will acquire a much richer variety of number concepts by actual application of units as they are intended to be used. *Every lesson in measurement, as far as possible, should be an activity lesson.* Psychology tells us that we know best what we use most. The approach to measurement in the primary grades consists in going through the motions of measuring using more or less accurate standards such as spoons, cups, etc. Gradually as we approach more mature ages, our meas-

urements must become accurate. Scores of equivalences are learned and are maintained in memory through use.

"Measurement has a history and children should not be denied access to it. The story of the efforts which man made to measure length, weight, and volume is now contained in many reference books. The coin is the result of the evolution of a long series of social institutions. The mere teaching of how to make change falls far short of the educational possibilities."

This introduction was prepared in an attempt to re-orientate teachers in the teaching of arithmetic. Teachers must take an inventory of their work at stated periods. A new course of study offers a splendid opportunity of self-evaluation in the light of modern progress. We are teaching for a changing world and our methods of procedure must keep pace with scientific research. Obsolete material must be discarded and new material be added as required by social usage. The teacher, as leader, must direct mental processes in the learner. We are very much in the dark as to how learning takes place. Repetition may not be the cause of learning, but in the absence of better information, we must go on repeating. The strength of the initial impression may be the important factor. We must make our impressions as forceful and as meaningful as possible. We must remember that permanence of learning is possible only at the price of frequent re-learning. The arithmetic taught throughout the elementary school should be determined by the needs and interests of life.

GRADE I.

Early number teaching must be informal.—It should be determined by the maturity of the child, and be guided by his interest. In this way, it will harmonize with the child's growth.

"The major objective of a primary number curriculum is to provide through enriching experiences a background of attitudes, appreciations, facts, and skills that will aid in the understanding of the formal arithmetic of later grades and in the meeting of child situations in which a need for number arises.

"Each week brings scores of situations in which a child must make use of numbers to carry on his work and play. Incidental number work must not be regarded as accidental number work. Activities must be provided in which the need for number will arise. *No attempt should be made to fix memory facts concerning number. No formal work in arithmetic should be done during the first year of school life*, and there should be no testing of the mastery of skills at the end of it. Nothing should be done to inculcate a belief that arithmetic is a difficult subject. Mistakes made do not matter so much at this stage. They will die out if wisely let alone.

"Children must learn to count. Counting rhymes, such as 'one-two-buckle my shoe' amuse them. They must know

the number names in their correct order, know how to keep the place when counting objects, and how to attach the correct number name to the object counted. Blocks are arranged in 2's, 3's, etc. They discover that the same set of blocks may be regarded as three two's or two three's. First let the children handle the objects when counting is done. Later the children may count what they see without having to touch each object. The sense of hearing should also be used to develop the meaning of number. The children close their eyes and count taps or claps. They make up bundles of ones and bundles of tens.

One may count forward or backward along the number scale. Time spent in counting will familiarize the pupils with many characteristics of the system and will result in the incidental learning of many combination and separation facts. Note that the first natural number group ends at ten; not at nine. The numbers 1 to 9 inclusive are one-place numbers and the numbers 10 to 19 are two-place numbers beginning with the digit "1"; but this fact does not justify the common practice of using number charts on which the first group ends at 9 and the second group at 19. Use the number system naturally but do not attempt to teach it formally. Remember always that devices are not methods.

Objectives to be attained:

1. Rote counting to 10 and counting objects to 20.
2. Rational counting of circles grouped in 5's and 10's to 100.
3. Recognition and printing of the words *one to ten*.
4. Reading simple numbers.
5. Time counting in music lessons, dancing lessons and in games: 1, 2; 1, 2; or 1, 2, 3; 1, 2, 3; or 1, 2, 3, 4; 1, 2, 3, 4.
6. Value of coins: one-cent, five-cent, ten-cent.
7. Make comparisons: Big, little, large, small, tall, short, high, higher, highest, many, more, most, less, long, short, smaller, shorter, wide, wider, win, lose, deep, deeper, colder, hotter, few, more than, less than, faster.
8. Define location: Top, bottom, above, up, middle, around, below, over, under, first, second, third, fourth, fifth, next, front, back, beginning, end, left, right.
9. Shape: (a) Forming a circle for games.
(b) A line, a straight line, a curved line.
(c) Square, triangle, oblong.
10. Groups: Pairs, herd, flock, team, group, crowd, duet, trio.
11. Grouping or dividing numbers: Choosing partners; counting materials by 2's in order to save time; carrying a group of 2 or 3 objects at a time so as to make fewer trips; dividing material among a group of children.

12. Parts of a whole, one-half and one-quarter (sharing idea only; all work to be oral).
13. "What comes" before and after numbers 1 to 20? (4 as one less than 5, and one more than 3, etc.) What number is one larger or smaller than any number to 10?
14. Fill in missing numbers: 1, 2, —, —, —, 6, —, —, 9, —.
15. Place the proper number under any designated object or objects in a row:
 - (a) Put 6 under the ball that is number 6.
 - (b) Make a row of chairs, some tipped; place the proper number under each chair which has been tipped.
16. Re-arrange mixed-up numbers in their proper order, smallest to largest, and largest to smallest.
17. Finding page numbers in books.
18. Recognizing numbers from 1 to 100. (Figures only, not written names.)
19. Writing numbers to 20.
20. Listen to tapping-ball bouncing, etc. Count the number of taps or bounces, and put down the correct number.
21. Combine groups of objects, i.e., 3 apples and 4 apples. The aim is to make sure that the child understands that two groups combined result in a larger one. Not any attempt to learn the facts.

GRADE II.

"It is now generally recognized as a fact that children's interests are socially determined. Incidental learning, whether through units or through unrestricted experiences, is slow and time-consuming. The child's interest is centred in the attainment of some end beyond the intermediate arithmetical task. Such arithmetic ability as may be developed is apt to be fragmentary, superficial, and mechanical. For the development of sound skill and knowledge, the new arithmetical elements must be abstracted from general situations and *must become the objects of direct teaching*. Drill is helpful when it takes place in its natural setting.

"There must be a definite period of instruction between counting and the number combinations, to provide for the child's activities and experiences which will carry him by easy stages from enumeration to meaningful ideas of number groups. He begins with concrete number-objects he can see and handle. He makes groups of objects; learns to recognize at a glance the number of objects in small groups, and in larger groups when the latter are in regular patterns. Eventually he comes to think of concrete number in terms which are essentially abstract; "5" becomes a meaningful concept, that does not need to be broken down into five 1's, and is available for use as such in new relationships. The child is now ready for the number combinations.

"Children should encounter the number combinations as number facts. "Two dogs and three dogs are five dogs", is a fact. 2 and 3 are 5 is not a fact; it is a generalization. Generalizations are learned slowly. Memorization at this time should not be encouraged. Instead of telling the child, " $3+5=8$ " and urging him to memorize it, the teacher should lead the child to discover it. One discovery is not enough. He must discover it many times and in connection with many situations. At first he makes the discovery with concrete materials; later he will rediscover the same relation in abstract numbers. He may have to count at first. This should not be forbidden if it is necessary to the child for it may be his only means of relating numbers. He should be helped to eliminate counting in favor of some more mature method of dealing with numbers. Finally he reaches the generalization $3+5=8$. Now is the time for him to memorize it.

Two plans are presented for memorizing the combinations.

Plan A:

This is the plan used in the Winnetka schools. No objects are used in connection with the actual learning of the combinations. All the work with objects has been done in the foundation work. The task now is simply to memorize each set. Not using objects in the actual learning of the number combinations reduces the danger of counting to a minimum.

Order of Difficulty of Combinations:

It is evident that the order of difficulty depends upon the method followed in presenting the number facts. Number facts are not inherently easy or difficult. The difficulty of any number fact depends on the child's experience. Different methods provide different experiences. The following order is not prescriptive. Each teacher will introduce a particular addition fact whenever the classroom experiences have prepared the pupils for it. For example: the fact "5 and 2 are 7" appears below in the seventh set. This particular fact may occur naturally much earlier in a money situation. Use the following order as a guide but capitalize opportunities for easy learning.

1st Set:

2	4	1	5	0	1	2	4
+2	+1	+5	+5	+0	+4	+1	+4
—	—	—	—	—	—	—	—

2nd Set:

1	3	1	1	3	1	1	1
+1	+1	+2	+3	+5	+6	+8	+7
—	—	—	—	—	—	—	—

3rd Set:

1	2	3	6	9	5	4	2
+9	+4	+4	+1	+1	+4	+2	+8
—	—	—	—	—	—	—	—

4th Set:

4	3	4	7	3	2	5	5
+5	+2	+6	+1	+3	+6	+3	+1
—	—	—	—	—	—	—	—

5th Set:

7	2	8	2	3	2	6	8
+3	+5	+1	+3	+7	+0	+4	+2
—	—	—	—	—	—	—	—

6th Set:

3	0	6	8	9	7	6	2
+6	+6	+2	+0	+0	+2	+0	+7
—	—	—	—	—	—	—	—

7th Set:

6	5	0	0	0	3	5	0
+3	+2	+2	+8	+4	+0	+0	+5
—	—	—	—	—	—	—	—

8th Set:

4	0	4	0	1	0	0	7
+0	+9	+3	+7	+0	+3	+1	+0
—	—	—	—	—	—	—	—

9th Set:

0	6	2	3	0	6	2
+9	+2	+5	+2	+7	+0	+3
—	—	—	—	—	—	—

A large part of the value of such a set-up comes from the definiteness of the course and the requirement of one-hundred-per-cent. mastery of each step before a new step is attempted.

Three types of material are essential for this work:

1. Cards from which facts may be learned. These cards should be about 2"×3". On one side of each card is one of the number facts of the set with the answer below. On the reverse side the same fact without the answer. There should be a set for each child.
2. Practice tests. These are self-corrective and are marked by the pupils.
3. Complete diagnostic tests to be marked by the teacher. These two forms of tests are, at the beginning, very simply made, but as they progress the tests should contain, in addition to the facts just learned, the more difficult facts of previous steps.

A Record Card becomes a necessity. It enables the teacher to know exactly what a child has accomplished, and it is a satisfaction and incentive to the child.

Additional Facts

Name of Pupil.

A. Oral Test.

B. Self-corrective Test

C. Complete Test.

Step 1. A	Step 6. A
B	B
Step 2. A	C
B	Step 7. A
C	B
Step 3. A	Step 8. A
B	B
Step 4. A	C
B	Complete Test.
C	Form 1.
Step 5. A	Form 2.
B	Form 3.

An example of Step 4 is given. Others may be constructed by the teacher:

A. Oral Test:

Flash cards containing the number facts of the set. Test each child for each fact. An older child may hear the responses. Place the cards in "I know" and "Don't know" piles.

B. Self-corrective Test:

4	3	4	7	3	2	5	5
+5	+2	+6	+1	+3	+6	+3	+1
9	5	10	8	6	8	8	6
Fold under							
3	7	2	5	5	3	4	4
+2	+1	+6	+1	+3	+3	+6	+5
7	3	4	2	4	3	5	5
+1	+3	+5	+6	+6	+2	+3	+1
5	4	5	3	2	4	3	7
+1	+5	+3	+2	+6	+6	+3	+1
3	4	1	2	5	3	5	4
+3	+6	+7	+6	+1	+2	+3	+5
4	5	3	4	1	3	2	5
+6	+3	+3	+5	+7	+2	+6	+1
Fold under							

Answers to Practice Sheet—Step 4:

5	8	8	6	8	6	10	9
8	6	9	8	10	5	8	6
6	9	8	5	8	10	6	8
6	10	8	8	6	5	8	9
10	8	6	9	8	5	8	6

C. Complete Diagnostic Test.

This includes all facts learned in Step 3 and Step 4.

4	1	3	2	4	3	7	6
+5	+9	+2	+4	+6	+4	+1	+1
—	—	—	—	—	—	—	—
3	9	2	5	5	2	5	4
+3	+1	+6	+4	+3	+8	+1	+2
—	—	—	—	—	—	—	—

Two forms of this test should be prepared, the only difference being a change in the arrangement. After the first test, the child should be allowed to study the facts named and then try the second form of the test.

Step 9 contains no new facts. It is a review of the most difficult facts of the first eight steps. Any facts in this test should be carefully studied before the complete test is given.

The complete test is prepared in three forms, the difference being one of arrangement. All the facts of the eight sets are included. If any facts are missed on the first test, these are practised and a second form of the test taken. If errors are made in the second test, more practice is required and the third form of the test taken. If complete mastery of each step has been required, the third form will seldom be needed.

References: (1) The Canadian Teacher, Primary Department, issues of 1935-36.

(2) Foundation Tests, by Committee of Seven, The Winnetka Press, Winnetka, Illinois.

In Winnetka schools the relation between addition facts and subtraction facts is shown by first taking sets of facts which they call "And Whats". (Note: At Winnetka the teachers take all the addition facts to 20 before subtraction is attempted.) In learning these the plus sign is still used.

First Step: (Read, 0 and what make 0?)

2	4	1	8	3	1	1
+	+	+	+	+	+	+
—	—	—	—	—	—	—
5	8	3	9	6	2	9

Second Step:

1	1	1	1	6	3	4	5
+	+	+	+	+	+	+	+
—	—	—	—	—	—	—	—
8	5	6	7	8	7	7	7

Third Step:

5	4	5	4	2	2	2	4
+	+	+	+	+	+	+	+
—	—	—	—	—	—	—	—
9	6	8	5	4	3	6	9

Fourth Step:

5	1	5	6	3	7	1	2
+	+	+	+	+	+	+	+
—	—	—	—	—	—	—	—
10	10	6	7	4	8	4	9

Fifth Step:

2	3	5	3	9	8	3	6
+	+	+	+	+	+	+	+
—	—	—	—	—	—	—	—
7	9	5	5	10	10	8	6

Sixth Step:

3	6	9	4	7	4	4	3
+	+	+	+	+	+	+	+
—	—	—	—	—	—	—	—
10	10	9	10	10	7	4	3

Seventh Step:

2	2	6	2	8	0	0	0
+	+	+	+	+	+	+	+
—	—	—	—	—	—	—	—
2	8	9	10	8	4	7	8

Eighth Step:

7	0	0	0	0	0	0	1
+	+	+	+	+	+	+	+
—	—	—	—	—	—	—	—
9	5	2	9	6	6	1	1

These are followed by the subtraction facts with the minus sign. The first set becomes:

5	8	3	9	6	2	9
—2	—4	—1	—8	—3	—1	—1
—	—	—	—	—	—	—

Some psychologists believe that it is wise to complete the addition facts for the grade before teaching the separations; others believe that the two processes can be taught at the same time. The procedure to be followed should be left to the judgment of each teacher.

Plan B:

Much experimental evidence is in favor of teaching the addition combinations grouped according to generalizations:

1. Adding 1:

1	2	3	4	5	6	7	8	9
+1	+1	+1	+1	+1	+1	+1	+1	+1
—	—	—	—	—	—	—	—	—

The reverses of adding 1.

2. Adding 2:

2	3	4	5	6	7	8	9
+2	+2	+2	+2	+2	+2	+2	+2
—	—	—	—	—	—	—	—

The reverses of adding 2.

3. Adding 0:

1	2	3	4	5	6	7	8	9
+0	+0	+0	+0	+0	+0	+0	+0	+0
—	—	—	—	—	—	—	—	—

The reverses of adding 0.

4. The doubles:

2	3	4	5	6	7	8	9
+2	+3	+4	+5	+6	+7	+8	+9
—	—	—	—	—	—	—	—

5. One more than the doubles:

2	3	4	5	6	7	8
+3	+4	+5	+6	+7	+8	+9
—	—	—	—	—	—	—

6. One less than the doubles:

3	4	5	6	7	8	9
+2	+3	+4	+5	+6	+7	+8
—	—	—	—	—	—	—

7. Adding to 9 and reverses:

9	9	9	9	9	9	9	9
+1	+2	+3	+4	+5	+6	+7	+8
—	—	—	—	—	—	—	—

8. Miscellaneous combinations and reverses:

5	6	6	7	7	7	8	8	8	8
+3	+3	+4	+3	+4	+5	+3	+4	+5	+6

Grade II teachers desiring to follow this plan will have to select those combinations in each set of combinations organized for generalization having a sum of ten or less. The separations may be organized on a similar basis, subtracting 1, 2, etc.

Drill in its proper setting will be of service in increasing facility of recall and in assuring permanence for the learned fact. Activities and experiences containing each new fact are multiplied. Each time a fact is used or thought is equivalent to re-discovering it. Ultimately the child comes to a confident knowledge of the fact, a knowledge full of meaning because of frequent verification, and habituation occurs rapidly and easily.

After drill and application of skills learned in practical life-like situations, it is recommended that diagnostic tests be applied to discover deficiencies; such tests to be followed by adequate remedial instruction. Finally, we must test these deficiencies to see how successful our remedial work has been. Keep a list on the blackboard of all facts that are missed. Opposite each fact place the initials of the child who missed it. Go back over these facts with the pupils who missed them and with the class as a whole. At the end of June, pass on, with your promotion card, a record of the deficiencies of each child.

In adding columns of three or four numbers, insist on economy of thought. The child should think "2 and 2 are 4, and 3 are 7, and 1 are 8", and should say "4, 7, 8". *Since experience and research favour downward addition when figures are written in column form, it is the method recommended in this course.* The direction of adding has significant bearing upon the content and organization of drill material.

Objectives to Be Attained:

1. Reading numbers 100 to 200.
2. Rational counting of circles grouped in 5's and 10's to give a meaning to place value.

3. Writing numbers 1 to 200.
4. The meaning of numbers as symbols for quantities:
 - (a) Groups from 1 to 10.
 - (b) The meaning of numbers from 1 to 200.
5. Addition and subtraction facts of numbers to 10.
 - (a) Easy one-step oral problems within the limit of 10.
 - (b) Extension tables up to and including 10.
 - (c) Addition, 2 or 3 wide and 2 or 3 deep; no carrying.
 - (d) Subtraction: 3-digit numbers; no borrowing.
6. The meaning of ordinal numbers from first to tenth; oral and written work.
7. Making comparisons (See the list of words in the Grade I outline): Farther, longer, nearer, younger, won, lost, heavier, thinner, fatter, slower, few, lower, tallest, older, nearer, faster, just fits, the same, smallest, widest, etc.
8. Measurement.—The calendar, telling time in hour, half-hour, and quarter-hour spaces; dozen; pint, quart; foot, inch; money—recognition of the coins, 1c, 5c, 10c, 25c, 50c; also ways in which 25c can be made with five and ten-cent pieces. Comparative value of 25c and 50c pieces.
9. Use of the terms: add, subtract, plus and minus; also the signs.
10. Counting by threes to fifteen and by fours to twelve.
11. Terms of location (See the list of terms in the Grade I outline): last, before, after, down, ahead, beside, between, centre, edge, behind, near, order, side by side, one side, the other side, upper.
12. Meaning of one-half, one-quarter, one-third (oral only). The sharing idea only,—a part of a whole.
13. Counting by 2's, 5's, 10's to 100 and recognition of odd and even numbers to 20, (a) starting with 0, (b) starting with 1, etc.
14. Terms used in expressing groups: pair, herd, flock, team, group, crowd, duet, trio, quartette, dozen.

GRADE III

Recognition of the recent conclusion that arithmetic failures are largely due to the exposure of immature children to materials that are too difficult, has led to an entirely new grade placement.

"The whole purpose of arithmetic is to discover number relationships and to be able to reason with number. It is not to learn tables. The child should know how to derive one number from another in different ways. For example, in how many ways can you obtain "5"? $1+4$, $2+3$, 1×5 , $5-0$, $6-1$, $10\div 2$. Children should be put into problem situations where, in order to get out, they must think in terms of number. In the outline for Grade II, we spoke of the procedure leading to generalization. Children constantly generalize, whether we encourage them or not. Many cases of interference are due to

errors in generalization. Pupils generalize too widely or form incorrect generalizations. To avoid such errors we must make training in generalization an important part of our teaching.

"Number concepts are not adequately developed by talking. The child must have experience with the realities of which the mathematical symbols are expressions. He must also have practice in associating the reality with the symbol till the symbol, instantly and unfailingly, calls up in his mind a concept of reality.

"There must be a thorough grounding in prerequisite facts and skills before going on to a new process. It is time in this grade to introduce individual tests of the mastery of facts and skills before taking up new work. The individual whose mastery is lacking goes on to a hopeless task. It is suggested for the mastery of the remaining addition and subtraction facts that teachers follow a scheme similar to the two plans outlined in the Grade II outline. A careful study of the technique outlined will be very much worth while.

"It is a well known psychological law that effort is proportionate to interest. Children must see and feel the need for what they are studying. Much time is lost by the attempt to drill children in the juggling of meaningless numbers to get answers for which they feel no need, and at a period of their mental growth when they cannot effectively learn the topic being taught.

"Adding by endings in its initial presentation should be taught in its most common setting; that is, in column addition (both with and without bridging). Put a column on the board and ask the children to figure out what additions have to be made. Write these additions on the board as given by the pupils. Pupils must see the recurrence of the two principal addition facts needed; thus,

$$\begin{array}{r} 4 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ + 3 \\ \hline \end{array} \quad \text{etc.}$$

Method of Subtraction:

The equal-additions method is probably as satisfactory as any other, and is the one given here. Another method has been suggested by Ballard in his "Teaching the Essentials of Arithmetic", and teachers would do well to examine this alternative method.

The equal-additions method is based on the principle that you can add the same number to both minuend and subtrahend without changing the value of the difference. The procedure using this method is as follows:

$$\begin{array}{r} 545 \\ -278 \\ \hline \end{array} \quad \begin{array}{l} \text{Since 8 cannot be taken from 5, 10 units} \\ \text{are added to the 5 units, and 8 units are taken} \\ \text{from 15 units. To compensate, 1 ten is added} \\ \text{to the 7 tens, making 8 tens. Since 8 tens cannot} \\ \text{be taken from 4 tens, 10 tens are added to} \end{array}$$

the 4 tens and 8 tens are taken from 14 tens. To compensate, 1 hundred is added to the 2 hundreds, and 3 hundreds are now taken from 5 hundreds. This method should be followed throughout the grades wherever subtraction is done with fractions, denominate numbers or decimals.

There are three subtraction ideas:

I have 5. I take away 2. (Taking away idea.)

I have 5. You have 2. How many more have I than you?
(Comparison idea.)

I have 2. I want 5. How many more do I need? (Additive idea.)

Before the child has mastered subtraction in Grade 4, he should have met all three of these situations. To make practice cumulative, each time a new meaning of subtraction is taught, review the meanings taught in order that pupils may keep all the meanings in mind and learn to distinguish between them. After each subtraction example, it is advisable to make up a simple addition example, using the same numbers that the pupils may appreciate the correspondence between addition and subtraction.

24	
16	364
43	127
27	352
—	—

Much time is being given to the study of attention span and memory span as causes for failure in column addition. It is felt that the two sums at the left are, in size, quite adequate to the needs of Grade III children. Quite as much practice can be derived from working sums of this size

as from larger ones, and a very high degree of accuracy can be obtained by pupils of Grade III.

There should be graphic teaching of the meaning of division. Have the pupils divide 12 erasers, 20 sheets of paper, 8 pencils, etc. Be sure they recognize the words used in division. Children must be brought to an understanding of division and to recognize division situations. Divide 8 by 2. There are two meanings:

1. How many 2's in 8?
2. $\frac{1}{2}$ of 8?

Two kinds of dividing which give the same answer when the same numbers are used.

Children must be given frequent practice in written work in order to make them familiar with the technique of writing their responses:

- (a) Work examples from the text.
- (b) Write answers to dictated examples.
- (c) Work examples from the blackboard.

Objectives to Be Attained:

1. Reading and writing numbers to 1000. Meaning of numbers to 1000.
2. Addition and subtraction facts 11 to 18.
3. (a) Single-column addition to a sum of 50.
(b) Column addition of numbers of 3 digits limited to 3 high. Adding dollars and cents.

- (c) Higher decade addition.
- (d) Subtraction: 3-digit numbers; subtrahend figures larger than corresponding minuend figures. Subtracting dollars and cents.
- 3. Counting by 2's to 20, 3's to 30, 4's to 40, 5's to 50.
- 4. Multiplication concept introduced. Multiplication facts to 5-times table. Simple multiplication with multipliers up to 5.
- 5. Division concept introduced. Division facts to 5, the long division form preferred.
- 6. Meaning and expression of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$, $\frac{1}{10}$.
 - (a) Part of a single object.
 - (b) Part of a group of objects.
 Relate to denominate numbers.
- 7. Relation of pint, quart; ounce, pound; inch, foot, yard; units of time.
- 8. Learning to call numbers over a telephone.
- 9. Application of facts learned in simple, realistic child-like problems, both oral and written; no formal analysis.
 - (a) One-step problems only.
 - (b) No problem in which a fact needed to solve the problem is missing.
 - (c) Clear, simple statements and small numbers aid the children to visualize the situation in the problem.
 - (d) Division problems limited to those in which the child is told about several and is asked to find out about one.
- 10. General review of the knowledges and skills taught in Grades I, II and III.

GRADE IV

The end of Grade III marked a natural testing-place. The pupils are now entering the elementary school. Deficiencies from the primary grades should be given immediate attention. The longer a wrong answer remains in a child's mind, the more likely it is to become a fixed habit. If a child hesitates in his response, supply the answer immediately, or have it supplied by another child.

We must secure independent learning of the separate multiplication facts. The teaching of the correlatives of the multiplication facts ($3 \times 4 = 4 \times 3$) should begin with the first set of facts. Problems applying the table of twos should anticipate a skill which children will need later when they learn to carry in multiplication; namely, that of mentally finding a product and then adding a number to it. When teaching multiplication by one and two-digit multipliers, it is wise from the beginning to insist on the practice of placing the right-hand digit of each partial product directly under the digit used in multiplying to get that partial product. Children

must be brought to see the relation of addition to multiplication; that multiplication is a short method of adding equal numbers. They should be brought to see that $2 + (2 \times 5)$ equals $2 + 5 + 5$ or $2 + 2 + 2 + 2 + 2$. This makes meaningful the manipulation of numbers where signs are used.

In introducing uneven division facts, divide a number of pencils, etc., among the pupils in groups of 2, 3, 4 or 5 with left-overs in each case. Let the pupils try to think in advance how many objects each pupil will get and how many will be left over; then do actual sharing. Introducing an idea in a simple form previous to its thorough treatment is good pedagogy. Follow with such questions as these:

1. What is the largest number under 18 that can be divided evenly by 5?
2. What is the largest number under 17 that contains 4 an exact number of times?

The following type of drill on uneven divisions facts is good:

$0 \div 3$	$0 \div 5$	$0 \div 7$
$1 \div 3$	$1 \div 5$	$1 \div 7$
$2 \div 3$	$2 \div 5$	$2 \div 7$
$3 \div 3$	$3 \div 5$	$3 \div 7$
to	to	to
$30 \div 3$	$50 \div 5$	$70 \div 7$

The recommendation of this course of study is that a one-rule procedure, the long-division form, should be adopted in instruction in division examples with one-figure divisors. For practical purposes, there will not be short division and long division, but merely division. Brighter pupils will readily acquire the short method for easy examples. Use the following form, $\overline{\hspace{1cm}}$, and insist that the first quotient figure be placed directly over the right-hand figure of the partial dividend, and that there be a figure in the quotient over each figure in the dividend to the right.

Teachers in this grade would be wise to review the statement on problem-solving found in the Introduction. In problem-solving, a demand for carefully selected words will bring with it a demand for more accurate thinking. If the situation in which the child first meets the problem is too difficult for him, reduce it to its simplest form and by careful gradation of steps of difficulty, lead him back again to the difficult problem with which he first started. Attempting to arrive at a solution of a new type of problem by himself gives him training in independent thinking and resourcefulness. Pre-solving thinking gives a more receptive mind-set. Children should be encouraged to judge the reasonableness of the answers. Answers should be made available at some place in the room.

Psychology teaches that before pupils are taught formal computation with fractions, it is desirable that they think about fractions informally and perform simple operations upon them intuitively:

What part of a cake is left when one-fourth of it has been eaten? Intuitive exercises with charts should lead to equiva-

lent fractions. Apply the meaning of a fraction to examples in denominate numbers.

Objectives to Be Attained:

1. Reading and writing thousands.
2. Column addition, not over 4 high and 3 wide.
3. Subtraction, subtrahend and minuend within 10,000.
4. Multiplication facts completed to the table of 10-times. Multiplication by 2-digit multipliers.
5. Division facts completed to the table of 10. Division by a one-digit divisor, long-division form preferred. Dividing to find the average.
6. Further experience with units of measure learned in Grade III: gallon, peck, bushel; ton; rod, mile. Writing time; abbreviations for units of measure learned.
7. Simple bills, accounts and receipts. Making change up to \$10.
8. Roman numerals to XXX.
9. Complete the meaning and expression of simple unit fractions (fifths, sixths, eighths, ninths). Find $\frac{1}{2}$, $\frac{1}{4}$, etc., of a number. Apply to denominate numbers. Equivalent fractions.
10. Recognition of rectangles, squares and triangles. Perimeters of rectangles.
11. Computation with dollars and cents.
12. Training in problem solving; one-step problems only.

GRADE V

Division by two and three-digit divisors offers a real difficulty in teaching the finding of the true quotient figure. In Alberta we have used a two-rule method. When the units digit is 1, 2, 3, 4, 5, or 6, the tens digit is the trial digit; when the units digit is 9, 8, or 7, the tens digit increased by 1 is the trial digit. The need for automatic division with two or more digits in the divisor encouraged Professor Clifford B. Upton, of Teachers College, Columbia University, to formulate the following scheme which gives the remarkable result of the correct figure on the first trial in 80.43% of all cases. In 99.72% of all cases this system gives on first trial either the correct quotient figure or a figure that differs from it only by one.

Rule 1:

For divisors from 19 to 99 that end in 1, 2, 3, 4, or 5, each quotient figure is found by dividing the partial dividend by the first figure of the divisor.

Rule 2:

For divisors from 19 to 99 that end in 6, 7, 8, or 9, each quotient figure is found by dividing the partial dividend by one more than the first figure of the divisor.

Rule 3:

A rapid comparison of the divisor and the partial dividend should always be made to see if the quotient is immediately evident:

(a) $17/\overline{17}$	$23/\overline{24}$	$27/\overline{29}$	$46/\overline{48}$
(b) $17/\overline{13}$	$23/\overline{14}$	$29/\overline{17}$	

Rule 4:

For divisors 11, 12, and 25, it is assumed that the multiples up to 9 times the divisors have been memorized.

Rule 5:

The divisors 13 to 18 are treated separately and the quotients are found by the method of trial and error. Two important habits:

1. Establish the habit of comparing each new partial product with the partial dividend.
2. Establish the habit of comparing each new remainder with the divisor.

Bring out the cycle of steps (divide, multiply, subtract, bring down). Make the children conscious of the recurrence of the cycle steps.

Fractions no longer occupy the place they did a few years ago. The decimal is rapidly replacing the fraction in industry, commerce, and also in measurement. In accurate and minute measurement it is necessary to go beyond $1/64$ of an inch. $1/128$, $1/256$, and $1/1024$ inch are too unwieldy and laborious to handle, whereas the .01, .001, .0001 inch are not. Decimals offer a decided advantage when it comes to computing with them. That is why mechanics have decimalized the inch, engineers have decimalized the foot, and aviators have decimalized the mile. In general, we test the value of a fraction by asking:

1. Is it simple?
2. Is it capable of application to a concrete situation?

Pupils should be taught to find $3/4$ of a number from $1/4$; $3/8$ of a number from $1/8$, etc. Arrange the practice in a sequence to bring out forcefully the relationship between the numerator of the fraction and the size of the answer. The pupil learns that he must begin with a unit fraction when finding any fractional part of a number.

Pupils must be given familiarity with the fraction concept. Counting of fourths of an inch, eighths of an inch, etc., on the ruler is very helpful for this purpose. Teach the operations with fractions intuitively at first.

For the explanation as to why addition and subtraction of decimals, and memorization of fractional and decimal equivalents, have been included in the Grade V course, and addition and subtraction have been placed in the Grade VI course, see the Introduction to this course of study.

In developing the meaning of area, use such material as a checkerboard, which shows clearly the units making up an

area. Try to get the pupils to discover for themselves the fact that the number of spaces can be obtained by multiplying the number of units in each row by the number of rows. Have them do plenty of drawings of rectangles as a means of understanding area. Begin one unit at a time, square inch, square foot, etc.

For recommendations concerning problem-solving, teachers are asked to read again the section on this topic in the Introduction.

Objectives to Be Attained:

1. Column addition limited to 5 high and 3 wide.
2. Practice in subtraction.
3. Multiplication by three-digit multipliers.
4. Short cut to division. Division by two and three-digit divisors. Methods of checking.
5. Reading and writing numbers to 1,000,000.
6. Roman numerals to 100.
7. Multiplication and division tables of 11 and 12.
8. Rectangle, square, triangle, circle.
9. Length and width; dimensions of rectangles.
10. Introduction of concept of area. Finding areas of easy rectangles; square inch, square foot, square yard, square rod, acre.
11. Weights of various grains and vegetables.
12. Thermometer (Fahrenheit only).
13. Drawing to scale—street and house plans. Distances on a map.
14. Elementary profit and loss; no percentage needed.
15. Topics for special report:
 - (a) How people travel.
 - (b) How fast we travel.
 - (c) School savings bank; no interest.
 - (d) Buying goods at a sale—reduction; no percentage.
16. Decimal fractions—meaning:
 - (a) Reading and writing decimals.
 - (b) Addition and subtraction of decimals.
 - (c) Memorization of fractional and decimal equivalents.
17. Addition and subtraction of simple fractions and mixed numbers; all denominators less than 8; no fraction in the subtrahend larger than the fraction in the minuend.
18. Writing remainders in division as fractions.
19. Finding fractions of numbers, e.g., $\frac{3}{4}$ of a number, $\frac{2}{5}$ of a number, etc.
20. Training in problem-solving; one and two-step problems.

GRADE VI

This grade marks the culmination of the work of the elementary school; as such, it marks a natural testing-place. Teachers must make certain that the main aims and objectives in the elementary school have been achieved.

Experimental evidence would favour the introduction of multiplication and division of fractions and mixed numbers before teaching addition and subtraction of fractions where difficult changes must be made in the denominators. Decimal equivalents should replace common fractions in the addition and subtraction processes, wherever possible. The use of decimals in multiplication and in division of common fractions is not recommended for two reasons: first, multiplication and division of common fractions are much simpler than addition and subtraction; and second, when multiplication and division of decimals are used, the question of rounding off, or of approximations, becomes too complex.

In finding common denominators, progressive educationists have discarded the method of breaking each denominator up into its factors. It is unnecessary and impractical for use with the simple fractions with which we deal in everyday life. The common denominator is either present as the largest denominator, or as a simple multiple of the largest denominator.

There is a growing tendency among textbook writers to recommend that in work with fractions there be no change from mixed numbers to improper fractions. The Committee feels that some leeway must be given our teachers in this matter. (See Number Highways, 5.)

The question of checking all answers for accuracy is under investigation at present. Evidence to date would indicate that too great an emphasis on checking is a loss of time; that checking the answer on one question does not make for greater accuracy on the next question. This means that we should apply the technique of checking with discrimination.

Experimentation and practice have questioned certain practices in our conventional treatment of decimals. Too much time placed on the reading and writing of decimals from the decimal scale of notation is being questioned in view of the way in which decimals are actually read in life situations. The rule that you can add zeros to the right of a decimal without changing its value, is being questioned by the mechanic who says that each addition and subtraction question must be an application of shop practice; hence you get more accurate and minute answers. The mechanic would abolish all addition and subtraction of "ragged" decimals, because false measurements are given by the practice of adding zeros to the right.

Graphs and diagrams help to present the facts in convenient form. The pupil should learn to read and to construct the simple forms of graphs found in his reading, and to sense their limitations.

The informational function is concerned with the problem of teaching various aspects of arithmetic in such a way that the whole subject will have a richness of meaning and content that is not possible when the major stress is placed on mere process work in computation. Teachers in Grade VI are pre-

paring pupils to enter the intermediate school. In Grade VII and Grade VIII the informatical side of arithmetic is greatly stressed. We look upon arithmetic in these grades almost in the light of a course in junior economics, and in many instances, stress the informational side more than we do the computational side.

Teachers are urged to read the Introduction to this course of study carefully. They are especially directed to the section on problem-solving.

Objectives to Be Attained:

1. Column addition completed—3 wide and 9 deep.
2. Continued practice in subtraction and multiplication.
3. Division completed.
4. Methods of checking.
5. Multiplication and division of fractions and mixed numbers.
6. Addition and subtraction of fractions and mixed numbers completed.
7. Multiplication and division of decimal fractions.
8. Bills and statements.
9. Graph scores—bar graph.
10. Ways of comparing numbers.
11. Using a scale of miles on a map.
12. Addition, subtraction, multiplication and division of denominate numbers. Limited to expressions of two related units.
13. Three fraction cases:
 - (a) Finding fractional parts of a number.
 - (b) Finding what fractional part one number is of another.
 - (c) Finding a number when a fractional part of it is known.
14. Review of units of measure studied in the first six grades. Introduce volume and the table of cubic measure.
15. Simple, practical two-step problems.

TEACHERS' REFERENCE BOOKS

1. *First Steps in Teaching Number*; Clarke, Otis and Hut-ton—W. J. Gage Co.
2. *Handbook to the Triangle Arithmetics*, Grades I and II—John C. Winston Co.
3. *How We Use Numbers*—John C. Winston Co.
4. *Diagnostic and Remedial Teaching in Arithmetic*; L. J. Brueckner—John C. Winston Co.
5. *Tenth Yearbook, Teaching of Arithmetic*; National Council of Teachers of Mathematics; Bureau of Publications, Teachers College, Columbia University, 1935.

6. *Twenty-ninth Yearbook of the National Society for the Study of Education*—Public School Publishing Co., Bloomington, Ill., 1930.
7. *Primary Number Projects*; Losh and Weeks—Houghton, Mifflin Co.
8. *The New Curriculum Arithmetics*—John C. Winston Co. (Books 3, 4, 5 and 6, 1935).
9. *Canadian Individual Arithmetic*, A B and C—Ginn & Co.
10. *The Child's First Number Book*; Dr. Ballard—Clarke, Irwin & Co.
11. *The Teaching of Modern Arithmetic*; J. S. Mills—Dent & Co.
12. *Teaching Arithmetic in the Primary Grades*; Morton—Silver, Burdett & Co.
13. *Teaching Arithmetic in the Intermediate Grades*; Morton—Silver, Burdett & Co.
14. *Child-Life Arithmetics*; Woody, Breed and Overman—Lyons and Carnahan, Chicago (Books 3, 4, 5 and 6, 1936).
15. *The Development of Problem-Solving Ability in Arithmetic*; Lazerte—Clarke, Irwin and Co., Ltd., Toronto.

The Social Studies

DIVISION I

There is no outline in Social Studies for Division I; for the reason that the Social Studies of this programme represent a fusion of History, Geography, and Civics or Citizenship; and as such, they present two types of content: (1) informational facts and generalizations, to be studied, comprehended and "learned"; and (2) activities of social living, that induce appreciations, attitudes, abilities and behaviours.

In Division I, only the second type of content is important; and the teacher will provide it by means of the enterprises for this division—the Social Activities.

DIVISION II

GRADES IV, V AND VI

Society is a complex institution embracing the family, community, province, nation, and world. The function of education is to fit the child to take his place and play his part in society. This involves participation in numerous collective activities. Successful participation requires willingness and understanding. The child or the adult must be prepared to co-operate with others, and an important duty of the school is to fit him to co-operate. Mere instruction may create the desire, but successful co-operation demands a considerable degree of self-sacrifice, a willingness to concede when convinced, open-mindedness, tolerance, resourcefulness and persistence, qualities not cultivated fully by instruction. So the school must arrange a program that develops these, and other necessary qualities, by means of participation in school community enterprises, where the child is granted a considerable degree of freedom to make decisions and to carry out his own designs. The fact that he is one of a group with similar privileges will constantly create situations akin to those to be faced in later life as a citizen. The meaning of co-operation becomes clear as the difficulties of carrying through enterprises are brought home to the child; the need for give-and-take are made apparent; the advantages of successful endeavor are realized. It is the function of the school through the Social Studies to subject pupils to this necessary disciplinary process.

The aims of the Social Studies are—

1. To direct children in experiencing a realistic understanding and appreciation of human relations; and

2. To permit children to participate in improving human relations. "These human relations have been classified into subject-matter fields, but the approach to them must be the *problem* approach of the child. From apparently simple questions the child opens up the world about him, the 'here and now' as well as the 'there and then'. As he continues to mature, he extends his experiences and strengthens his ability to consider and understand an ever-widening scope of factors. His concepts extend from himself to the family, the community, province, nation, world, in an effort to understand his place in the intricate pattern. He is able to project his thinking from the present backward to the yesterdays, forward to the to-morrows. The Social Studies afford experiences in which the teacher progressively aids the pupil to develop an understanding of his relationships to others, and to adjust himself to living in a world of other youths and adults, things, institutions, ideas and aspirations".

Attitudes.

"The work, properly carried on, should develop or strengthen such attitudes as the following:—

1. The attitude of *Inquiry*—the desire to find out for one's self—to question constructively.
2. The attitude of *Critical-mindedness*—the tendency to seek explanations, to discover causes, and expect consequences; to evaluate and verify statements heard or read; the disposition to consult authorities.
3. The attitudes of *Open-mindedness*, *Tolerance*, and *Responsibility*.
4. The attitude of *Appreciation*—appreciation of the contributions of others to our comfort and safety; appreciation of good workmanship in any field.
5. The attitudes of *Creative Self-expression* and *Self-cultivation*, increasing the number and depth and variety of one's interest.
6. The attitude of *Willingness to Co-operate*.
7. The attitude of *Sympathy*—towards the underprivileged, the foreigner and others."

In general, it is hoped that the child will develop an attitude on all the important problems arising from men's living together. He should come to realize that man has constantly endeavored to improve his living conditions, and has gained increasing control over his environment by reason of unceasing effort. The following learning outcomes may be looked for:—

Special Abilities.

- "1. To read, speak, write, listen, and study, intelligently.
2. To follow instructions capably.

3. To respond to situations requiring neuro-muscular skills.
4. To use references, assemble material, and organize information."

THE COMMUNITY IDEA

(A Plan for Fusing History and Geography)

Introduction.

1. Communities are groups of people with common laws, interests and customs.
2. All members of the community have a responsibility for the welfare of all the other members of the group.
3. People form communities because they like to be together; they wish to visit with each other; they do not wish to live like hermits; they wish protection.
4. In the first year of the work in Division II, seven or eight problems or units will be treated. These studies deal with different types of communities scattered over the earth. Some of the communities are primitive, while others are very modern and up-to-date.
5. The simple types of communities might be called the "hunting and fishing" types. Their whole business is a matter of food-getting. Such are to be found in Eskimoland, hot desert lands, jungle lands, and the warm Pacific islands.
6. A more complicated community is that of the "pastoral type", in which man has made use of animals to suit his purposes. When food and clothes were wanted it was not necessary to waste time chasing over miles of country. He could use this time for other useful purposes. Such communities are to be found in China.
7. Communities later took on a sort of combination type of living. Some of the people would be living in "pastoral" groups, looking after their flocks; others would be in an "agricultural group" and would be busy with their crops. In this latter type, larger groups stayed together, and there was less and less wandering. Examples are to be found in the early pioneer communities.
8. Men began to make things by hand in order to assist them in their work. Soon communities took on the form of a "handicraft" group. Later they began to make tools for spinning, weaving, and for making fine kinds of materials. The Swiss folk are typical of this "early-manufacturing" group.
9. Soon machines were invented and craftsmen became operators of machines. Factories started and it was their task to make quickly all these things that were made in the home. Bread was no longer baked at home; the old spinning wheel disappeared; foods, clothes and tools were made in big factories, a new type of community. The factory was located in the town or city.

People flocked to the cities for jobs. They raised their families there, and their children also needed jobs. Thus cities grew and grew until today we have the great "city" community of which London, New York and our own provincial cities are types.

Communities and Sub-Communities.

Within a great community like "the city of London" there are a great many small communities which should be recognized. Let us list these.

- (1) **The Home.**—The world unit of today. It has its laws to which all members are responsible. Lessons of obedience, self-control, respect, sympathy, love and happiness are all taught here. The father is at the head of this community.
- (2) **The School.**—Here important lessons of respect, co-operation, loyalty and consideration are taught. The school tries to prepare us to be good and intelligent citizens. The success of the school depends on the contributions of all the members. The teacher is the guide of this community.
- (3) **The Church.**—Here we are taught to live uprightly; moral and social needs are given attention. We are taught the lessons of love for our fellow men; of giving help to the needy. The church gives poise, stability and nobility. The minister is the guide of this community.
- (4) **The Neighborhood.**—We begin to realize what a citizen is. He has a place in the community group and he must behave according to regulations drawn up by the whole group. Some of the matters of group concern are the attractiveness of the neighborhood; the disposal of garbage; trees and lawns; health; good water; conveniences, such as light and gas. We appoint a reeve or mayor to be at the head of this community.
- (5) **The Factory or Business Community.**—Now comes the lesson of co-operation in making a living. Each has a job which is related to the various jobs of the whole community. We now learn lessons of faithfulness, honesty, perseverance, contentedness, ambition and co-operation. The factory or business manager is at the head of this community.
- (6) **The State or Province Community.**—Our community is becoming larger and larger so that we cannot see all its parts. We cannot even hope to visit them all. Because it is so large, the sections have to be thought out more carefully. Laws are given more thought, and the people have to be "governed" or guided according to the group will. The Government looks after our protection, our health, our schools, peace and order, and our roads. The Premier is at the head of this community.

7) **The Dominion.**—Again our community gets very large. We have another Government in Ottawa which makes laws for our Dominion. These laws regulate our post offices, our harbors and ports, our fisheries. We have a Prime Minister at the head of this great community.

(8) **The World.**—This is the largest community of all. It is so large that we cannot place any one person at the head of it. There are a great many national communities in it, and perhaps this is the main reason why we cannot appoint a head. A King might be at the head of our great British Empire Community, but this does not include all the communities. The National Community heads attend to tariffs, merchant marines and trade. The League of Nations is perhaps a community attempt to group all the world peoples for peace, order and good will.

The world is, however, made up of a very great number of the smallest of our communities, the home.

GRADE IV

The course in this grade consists in taking the pupils on imaginary journeys to other parts of the world to find out how other people live; and in bringing them into contact, vicariously, with the early peoples of their own land and with primitive peoples in various parts of the world. Two studies of modern life are added.

The chief aims of this journey history-geography are—

- (a) To interest the children in the life of people whose civilization is at an earlier stage than our own, or whose environment and customs are different.
- (b) To have the pupils realize, through comparisons made in the course of their investigations, the advantages of their own environment; advantages which have come, in part, because people have co-operated and worked together.

A permanent fund of knowledge within any particular subject-matter field is not the objective in this or the succeeding two grades. The development of a point of view is the objective.

Study One: THE CANADIAN NOMAD COMMUNITY.

- (a) The Indian fur trappers of northern Canada:
Location of Hudson Bay; the trapper's home; a visit to the trap lines; a trip to a trading post, etc.

Studies of their hunting, ceremonies and dancing, religions, warfare; transportation and migration; recreations; the safeguarding of health; the "medicine" man. Life a constant struggle with nature; improvidence of the Indian.

(b) The Eskimos of Baffin Land:

Location and appearance of the island; summer homes; occupations and sports of men, women and children; religious ideas; life in winter (homes, clothing, occupations and modes of travelling); health; contacts with the white men—missionaries and traders; effects of these contacts; the aeroplane in the North Land; the Police in the North—the justice of nature replaced by the law of Canada.

They band together for safety and to fight against nature in getting food and providing a fresh bill of fare. Feast or famine.

There has been little change in their community life.

Study Two: A JUNGLE COMMUNITY.

The Congo or Amazon dweller. A trip from Arabia to the Congo or the Amazon; sights seen along the river; the negroes or natives; their appearance; occupations, games; interesting plants, birds and animals of the region.

Water transport is necessary: roads are impossible in the hot, steamy jungle. The small community clearing, with houses on stilts; shelter crude and simple; food mostly fruits and manioc; clothes scanty because of heat and rain; use of the blowgun.

Study of the abundance of nature and of the dangers of forest and river; organization into communities; customs, beliefs and superstitions (the "witch" doctor); government and security of life—village life under the headman. Effect of abundance and ease of life upon the character of the inhabitants; ignorance the cause of superstition. (The function of education—the advantage of attending school.)

Brazil nuts for Christmas, or rubber for our tires, or palm oil for our soap.

They are banded together for protection against animals, forest, river and nature.

There has been little change in their community life.

Study Three: AN ISLAND COMMUNITY.

The South Sea Islander.—An ocean trip from the mouth of the Congo or Amazon around the Cape of Good Hope; arrival, and welcome by the natives; trip from ship to shore in canoe. Appearance of the natives; homes of the natives; riding the surf; the cocoanut palm and its uses; the pearl divers; the shark and the octopus.

The abundance and bounty of nature; a moist, warm land of rich volcanic soil; foods like cocoanut, bread-fruit, bananas, and yams, are easily grown. Abundance of foods causes a lazy existence; no need of effort and no sense of responsibility; the childlike nature of the natives.

Studies of ceremonies, customs, government and law; community organization is the "tribal" plan—living like one large family. (Many excellent travellers' accounts of life in

the South Seas are available; the voyages of Captain Cook and Tasman.)

A life too easy and pleasant does not develop character; effort and struggle are good for us.

Fibre mats for our doorsteps and cocoanut for cooking.

They are banded together in a simple, natural community.

Their communities have made some progress but their wants are few; so there has been no frontier spirit, no introduction of inventions, and no development of great cities.

Study Four: A VILLAGE COMMUNITY.

A journey from the South Sea Islands past the Spice Islands of the East Indies to the port of Canton. Interesting sights in a Chinese port; life in a crowded river valley; rivers the arteries for travel and communication; visit to a tea garden; the Great Wall; a Chinese temple; Marco Polo's journey.

A study of "village" life; a land of farmers; the importance of the village; its organization; a Chinese school; games and stories enjoyed by Chinese children; customs and ceremonial; courtesy and consideration; indifference to the value of life (hygiene); bargaining in China, truth and honesty (the "squeeze"); regard for one's elders (ancestor worship).

How the Chinaman looks at Western progress—little desire to contact other civilizations; values and disadvantages of contentment. Qualities of respect and reverence; value of frugality.

Tea for our tables; silk for our clothes.

They are banded together for the purpose of supplying food to a great mass of people.

This is an early civilization, which has made little progress according to our Western standards.

Study Five: A HOT DESERT COMMUNITY.

A nomadic or wandering community in search of food for their animals. A journey to Arabia; appearance of desert and oasis; modes of travel; dress; homes, food and occupations of the Bedouin Arabs; visit to an oasis town. They are constantly moving in search of food for their flocks; shelter is simple and is easily moved to suit their roaming habits.

Consideration of the manner in which desert life affects the protection of life and property; studies of customs, government and law; the patriarch compared with the father of the family of today; respect for parental control compared with that of the modern family; the qualities developed by their mode of life; how children occupy their time. Some comparisons might be made with ranching life in the early days of the West.

The Bible stories (Abraham, the Children of Israel in the Wilderness, etc.) could be used to advantage.

The qualities of courage, resourcefulness, independence; little sympathy for the weak.

Dates for our cakes or coffee for our breakfast.

They are banded together as a family, or a group of families, for protection against bandits and storms.

There has been little or no change in their community life.

Study Six: A MOUNTAIN COMMUNITY.

The Swiss People.—Journey in imagination over Marco Polo's route from Canton, Peking, to Venice, then to Switzerland.

A land of sheltering mountains, protecting the Swiss from outside wars; the river valleys lead to a common meeting-lake; their country a land of rain, cool climate and rugged surface; life on a Swiss farm—(1) in summer, (2) in winter; grazing and dairying—milk chocolate.

A land of mountain climbers and hard workers; a land of sport, of play grounds, and of tourists; the toy makers.

Consideration of how a small group of people, through times of difficulty and danger, have been able to keep their own way of life—co-operation, courage, resourcefulness. Study of Swiss customs; a hardy and independent people; effect of environment on character.

Stories of William Tell, of St. Bernard dogs, of mountaineering adventures and guides. Facing difficulty coolly; making the most of what is available.

A Swiss wrist-watch for one's birthday.

They are banded together in village communities for protection from outsiders, for freedom and for progress.

These communities have made marvellous progress despite their great handicap.

Study Seven: A VERY MODERN AND A MOST PROGRESSIVE COMMUNITY.

In London, the Heart of the British Empire Community.—The early settlement along the Thames River; use of the river in the early days; use today; the story of the Great Fire; how a fire would be handled today.

A trip up the Thames and under London Bridge; a trip on a bus top and in the "tubes"; visiting famous bridges (London and Tower); the Tower of London; the King's home; Big Ben; changing of the Guard; at Kew Gardens. All possible material, printed and pictorial, is gathered preparatory to the study. Children then visit, by means of it, the points of interest in and around the city. They inquire into the customs and ways of life of particular interest to children. They visit the docks; watch the costermongers; visit a school, Buckingham Palace, Hyde Park, etc.

The courtesy of Londoners, as exemplified by the "bobby" or "copper", will be stressed, and attention will be directed to the tolerance of Londoners towards people of all races and creeds. (The soapbox orators in Hyde Park.) Applying this to ourselves—tolerance towards the views and customs of peoples that differ from us.

A great community headed by a Mayor, with many departments.

The people are banded together at a convenient meeting place in the heart of the Empire.

Suggested Enterprises:

1. Indian Life.—The pupils in the grades of Division II may use Study One as the basis for an enterprise that should prove both interesting and instructive.
2. Eskimo Life, or Congo Life—as above.
3. A comparative study—Indians and Eskimos.
4. How contact with the white man has changed Indian, or Eskimo, or any other primitive civilization. (Some attempt should be made here to evaluate the changes—losses and gains, effects on character.)
5. What Canada does today for the Indians.
6. Missionary work, past and present, among the Indians (or Eskimos, Chinese, Congo Negroes, etc.).
7. Life in the Tropics.—Studies Two, Three and Five in this grade, along with that on the adaptations of characteristic plant and animal life of the zones in Grade V, furnish excellent material as the foundation for an enterprise on tropical life.
8. The effect of climate and food supply upon the habitations of the Plains Indians, the Indians of the West Coast, and the Eskimos: a comparative study.
9. Environment and housing among primitive peoples—how the houses are adapted to conditions.
10. Transportation (or hunting, warfare, religion, agriculture, etc.) among primitive people: a comparative study.
11. The occupations of boys or girls among primitive people; or education, etc.

From the citizenship point of view, comparisons, both favorable and unfavorable to our system, should be made between the conditions in the pupils' environment and in that of the particular group of people being studied. The pupils should realize from their investigations that there is much of value to be learned even from very primitive civilizations. All should be made aware that they are definite parts of a community of people, and that rights (which all enjoy) connote duties (which all must discharge). The concept "responsibility" is best made clear by *making children responsible*.

GRADE V

THE DEVELOPMENT OF FRONTIER COMMUNITIES.

The course in this grade, in a very general way, seeks to acquaint the child with the world in which he lives through a series of studies of the globe map. Explorer and navigator history is used in approaching the studies. Geography is introduced according to the way in which it serves to explain the social life of the people. Civics is observed in the way in

which the communities organize into groups for their major social needs. At all times the debt we owe the frontiersmen is kept in the foreground. The studies progress by starting with the large world unit and considering how modern exploration and discovery have completed the task, begun long ago, of establishing communities. Community development is then traced backward and linked up with the exploration and discovery of our own continent. As frontiers are pushed outward, new communities develop, until we reach the stage of our present complicated community development.

The child discovers, in detail, the main features of the North American Continent and of the Canadian West. Closely related to these studies will be an examination into the manner in which the early explorers made their way into the Great West. For comparisons, interesting studies of modern explorations should be undertaken, to acquaint pupils with the contributions made by modern science to comfort, speed and safety in the most remote parts of the earth.

Attention should be directed, in the light of these studies, to the opportunities the community of today offers to those who seek to improve and to enrich it.

The aims in this grade are—

- (a) To increase understanding of, and to quicken interest in, the environment beyond the child's immediate community—in the Province, in the Great West, and in certain selected areas outside our own land.
- (b) To lead the pupils to trace the explanation of their twentieth-century community back in time and out in space, through inquiry into the discovery and history of the West.
- (c) To create interest in the present social and economic environment of the individual by comparison with that of the early settlers in the West and in other parts of the Empire.
- (d) To lead the child to appreciate the difficulties met with in the establishment of new settlements far removed from parent communities.
- (e) To lead the child to trace the changes which have slowly brought comfort and convenience to those once on the frontier—the change from handicraft production to mass production.

Study One: THE WORLD WE LIVE IN.

Exploration has really made our earth small. North America was a part of our unexplored earth, and from this raw homeland many types of communities were to develop. In some sections the country was most uninviting, so that no development has taken place.

In this first unit, the world is viewed as a great whole, the explorer searching and pushing his way against mighty odds into every nook and corner until today no part of the world remains unexplored.

1. The shape of the earth.
2. Location, names, and comparison of sizes of continents and oceans. Nature left man a ball-shaped earth, ridged with hills, plains and deep hollows or oceans. Life exists everywhere, and today some form of plant, animal or human life is scattered over the whole earth. Certain types of people have grouped together into communities and make use of the plants, the animals, the soil, and the earth's minerals to suit their needs.
3. Size of earth (Introduce use of scale). Study an account of Magellan's or Drake's trip round the world—time, difficulties, dangers, crudeness of navigation instruments.
4. Conquest of the ocean barrier in modern times by (a) the sailing vessel, (b) ocean liner (Queen Mary and Normandie), (c) aeroplane (Wiley Post and Gatty, Alcock and Brown, Lindbergh, Kingsford-Smith, (d) the dirigible (the Hindenburg).

Oceans were for a long time unconquered: travel slow; no engines; adverse winds; calms; vast expanse of water—no land for months. The sailing vessel gave way to the engined liner, the winged plane, the gas-filled and propelled dirigible. Today the air explorers regard the ocean as really conquered. We sit by our radios and in a few hours the trips are completed.

Heroes of the air: Alcock and Brown, Lindbergh, Post and Gatty, Eckner, Mollisons, Kingsford-Smith.

5. Positions of North and South Poles. Examination of the records of Franklin, Peary, Scott, and Amundsen, Stefansson; conquest of ice barriers by aeroplane and dirigible (Admiral Byrd at Little America; Ellsworth).
6. Man's conquest of the great mountain and desert barriers of the world—Rockies, Alps, Andes, Himalayas, Sahara, Arabia, Australia. (Mackenzie, Pizarro, Mallory and companions on Everest, Eyre and Stuart Coote in Australia, etc.)
7. The equator, parallels of latitude, meridians; and their use in locating places on the earth's surface.

Need of a location scheme: In early days such a scheme was not necessary, because there was no contact such as wireless, radio. To-day explorers are aware of the shape of the earth and have developed a scheme of location. Street systems used in cities to locate homes; parallels and meridians locate peoples and ships on the earth. (The equator and prime meridian are the main streets of this system.)

Latitude and longitude.

How early mariners found their way.

8. Position, size and shape of the zones.
9. Adaptations of a few characteristic plants and animals of each zone.

Suggested Pupil Activities.

1. Presentation of reports (oral or written) and illustrative material developed about topics suggested in the outline; e.g.:
 - (a) An investigation of early methods of travel—Columbus, Hudson or Magellan—compared with modern travel.
 - (b) Collecting or making a series of maps with suitable legends showing how ideas of the shape and size of earth have changed.
 - (c) A booklet, frieze, or bulletin-board display, showing advances in sea (or land or air) transportation. This will include information on navigation, food, and water supply, cargoes, health, etc.
 - (d) Open forum; informal debates.

Study Two: THE CONTINENT WE LIVE ON.

I—Coastal Features:

1. Position, size, shape, and population of North America compared with that of other continents—a preliminary study.
2. Why man has made so little use of the numerous harbours along the northern coast of the continent. Hudson Bay—its importance to man, past and present. Experiences of early navigators—Henry Hudson and Franklin; the North-West Passage by Amundsen; values of these voyages.
3. Influence of irregular coast-line and adjoining seas upon the commercial and industrial activities of the north-eastern and north-western coast. (Make Labrador Current, Gulf Stream, Cape Race, Grand Banks of Newfoundland, Sable Island, Bay of Fundy, Straits of Belle Isle, Puget Sound, the Japan Current, Vancouver Island, meaningful to pupils in this connection.)

Studies of the voyages, difficulties, and contributions of such early navigators as Cabot, Cartier and Champlain; and of Bering, Cook and Vancouver. (Dangers in approaching and charting a strange coast; difficulties of intercourse with natives; methods of establishing trade.)

4. Influence of regularity of coast-line upon the development of ports in southern sections of east and west coast.

Suggested Pupil Activities:

1. Pupil reports, discussion (forum), debates.
2. Pictorial map (flat or relief) combining chief coastal features in relation to coastal exploration; suitable legends.
3. Tabular comparison of size, shape, population of North America and any other continent or continents.

4. How did men transport goods and communicate with each other in early times? In what ways has the position of Canada on the earth increased the comfort of its people?

II—Surface and Climate:

1. General ideas of the four great natural sub-divisions of the continent: Western Cordillera, Great Central Plain, Canadian Shield, Appalachian Region.
2. The Great River systems: Yukon, Mackenzie, Saskatchewan-Nelson, Mississippi, St. Lawrence.
3. Climate:
 - (a) Chief factors upon which the temperature of a region depends. Operation of these factors in North America.
 - (b) The chief factors determining the rainfall of a region. Distribution of rainfall on the continent.
4. Plant and animal distribution:
 - (a) Relation of the character of native plants to the amount of heat, sunshine and moisture received.
 - (b) Relation of the distribution of wild animals to vegetation, surface, and climate.

Suggested Pupil Activities:

Map work: various types—outline, pictorial, relief.

Study Three: THE EXPLORERS OF THE GREAT WEST.

While the body of material considered in this section is largely historical, the teacher will observe how close is its relationship to that outlined under Study Two. Though the material in Studies Two and Three is organized here under separate headings, the teacher should plan to have children examine the effects of surface and climate upon the exploration, etc. *Relate: do not separate.*

This study enables pupils to discover how daring men pushed back the frontiers. The intimate relation between exploration and commerce will be investigated. Our proximity to the last great frontier region—the Peace River district—should receive some attention. In the course of these studies attention is directed to such problems as the following:

- (a) How ways of transportation and communication serve to advance frontiers.
- (b) How natural features help or hinder exploration; importance of the lay of the land.
- (c) How climate, hostility of native tribes, ignorance of routes, need of food supplies, etc., present obstacles to the explorer. (Preparations father makes for a fishing or hunting trip reviewed as offering assistance here.)
- (d) The debt we owe to those who blazed the trails; the qualities needed for success, and the opportunities modern society presents for the exercise of these qualities; responsibility toward our own community.

A study of the work of such of the following as time will permit should be made: La Vérendrye, Hearne, Mackenzie, Peter Pond, Thompson, Lewis and Clarke, Franklin. (Exploration routes followed are the commercial routes of to-day.) Studies of the explorations of Bering, Cook and Vancouver will acquaint the children with the work of the men who helped to make the coast of British Columbia part of Canada, and with the habits, customs and modes of life of the Indians of the Coast.

Importance of leadership in instilling noble qualities in those who follow; leader's own ambitions not always found in his men, who may be suspicious and discontented because they lack in courage and perseverance.

Food and water shortages serious; careful preparations made. (Care with which the Mt. Everest climbers equipped themselves.)

Characteristics of the explorer: objective not immediate, but never given up; heroism and strong spirit; struggle against odds; sense of duty; forceful personalities.

Rights and laws: Temporary regulations to protect and conserve life; no time for planned production of services; consumption without production is dangerous.

Understanding and appreciation, rather than extensive information, will be the objective.

Suggested Pupil Activities:

1. A diary of an imaginary journey with one of the explorers. This would relate closely the historical and geographical aspects. The diary might record the journey through the wilderness; finding the route; animals met with and killed for fur or food; fruits, roots and berries used; getting water and fuel (in the case of an Australian explorer, for example); meeting and communicating with natives; protection against weather, animals and people; clothing, utensils, weapons used; food carried; types of transportation, crossing mountain ranges, descending swift rivers, portaging; division of labour; trading with the native tribes.
2. An enterprise might centre around "The Indians of the Coast" or "Trading at Nootka". Study here the problems facing an explorer who comes by ship to a strange coast. Contrast with modern landfalls—maps and charts, well-marked channels, lighthouses and light-ships, buoys, harbours, radio, weather reports, pilots, etc. Map work: Continents and oceans (Drake's voyage); zones of the world; charts of distribution of plants and animals.

Study Four: THE CANADIAN WEST.

1. Political divisions of Canada west of the Great Lakes. Relation of these divisions to parallels of latitude and meridians.
2. Location and chief characteristics of the three great natural regions (mountains, plains, and Canadian Shield).
3. Contrast in climate of Pacific Coast and Prairie Provinces.
4. How man has made use of the great river systems for transportation, hydro-electric development, commercial fishing, irrigation and mineral development.
5. Life on a Saskatchewan wheat farm, an Alberta cattle ranch, and a British Columbia fruit farm.
6. Coal mining in Alberta; the Turner Valley oil and gas field; the Kootenay mining area.
7. The lumbering industry of the Pacific Coast.
8. Location and interesting features concerning development of Winnipeg, Regina, Saskatoon, Edmonton, Calgary, Lethbridge, Medicine Hat, Vancouver, Victoria.
9. Points of interest to tourists in Western Canada.

Suggested Pupil Activities:

1. Life in the Canadian West illustrated by construction of a large economic map of Western Canada.
2. Map of Eskimo or Indian land of North America.
3. Map of tundra, forest and plains of North America.
4. Collection of exhibits to illustrate some phase of industry; e.g., Turner Valley oil and gas field.
5. Sand table set-up on some phase of industry; e.g., lumbering.

Study Five: PIONEERS OF WESTERN CANADA.

The aims in this section are to give children a sympathetic view of the problems faced by the pioneer, and to have them appreciate the contributions which the pioneers made to our later comfort and well-being. Close relation of this material to that in Study Four. This study will open up for consideration such questions as the following:

- “(a) How frontier living affects the protection of life and property. Conflict between a native community of Indians and a newly developing frontier community.
- (b) How it modifies the production of goods and services.
- (c) How it restricts consumption, and how this scarcity is gradually overcome by the ingenuity of the pioneer in shaping to his use the new materials in his environment.
- (d) How ways of transportation and communication serve to advance the frontier.
- (e) How recreation, religion and education are modified by frontier conditions.”

This study could include consideration of any or all of the following topics:—

I—*Fortune in Furs:*

Establishment of the Hudson's Bay and North-West Companies. Studies of a typical trading post and its daily routine.

II—*New Homes in the Wilderness:*

Study of early settlement and pioneer life. "The Red River Colony" would be a good subject for investigation; the route by river system from Hudson Bay and west to the Rockies; use made of river systems by explorers and settlers; use made of river to-day (sport, scenery, power, water supply, irrigation).

Sturdy Scotch people in a hard but invigorating environment; contribution to agriculture in the West; as frontiers advance and settlement expands the railway appears, roads are built, telephone and telegraph lines are built. Recreation, religion and education given attention as a local need.

III—*The Church in the Wilderness:*

Study of the contributions of the Church to the communities of the early Great West. Consideration of the work of Taché, Lacombe, John and George McDougall, Black, etc. Comparison with missionary efforts of to-day.

IV—*The Coming of the Police:*

The origin of the police; lawlessness of the frontier—"the whisky traders"; the march west; the policing of the Plains.

The dangers and difficulty of the work in the early days; the manner in which the police helped the early settlers.

How the police help communities to-day; our duty—co-operation with the officers of the law, who provide for our comfort and safety.

V—*The Coming of the Railway* (Closely related to Study Two):

A study of the problems confronting the railway builders of Canada, and of the manner in which the work was done. Benefits; effects upon the West, the filling up of the West, settlement, new Provinces, wheat. Study of how important cities got their names.

The citizenship aspect of this study should not be neglected. Such studies as those undertaken above should help the pupil to realize the meaning of responsibility, should make him more appreciative of the efforts of others, and should teach him the value of self-discipline.

Suggested Pupil Activities:

1. An enterprise on "Pioneer Life".

This could be undertaken in relation to any chosen locality and community, such problems as the following being considered:

- “(a) Why do men wish to make homes on and beyond the frontier?
- (b) How do successful pioneers adapt themselves to conditions of life on the frontier? What are these conditions?
- (c) How do pioneers make provision for group welfare?
- (d) How do climate and natural resources determine the kinds of houses they build, their food, clothing and recreation?
- (e) How do pioneers make provision for church services and education?
- (f) How do men profit from the experiences of pioneers?”
2. The problems to be met in building a great railway. Advantages railways have brought to Canada.
- This could be enlarged to include a study of different modes of locomotion from the pack-horse and cart stage to the present locomotive and aeroplane.

Study Six: SOME MODERN EXPLORERS.

In this study pupils inquire into any of the following:

- (a) *Explorations by land, sea and air.*
- i. Franklin, Peary, Scott, Amundsen at the North and South Poles. For long, ocean barriers were impassable. Travel was slow—no engines, adverse winds, calms, vast expanse of water, no land for months, poor navigation instruments. Changes due to the engined ship, the winged plane, the gas-filled and propelled dirigible, modern aids to navigation. (Wonderful equipment of “Queen Mary” and “Normandie”.)
 - ii. Heroes of the air: Wright Brothers, Blériot, Alcock and Brown, Lindbergh, Post and Gatty, the Mollisons, Kingsford-Smith, Dr. Eckner. These men have made our earth seem small. Planes flying at 200 m.p.h. cover vast distances. Magellan took three years to circumnavigate the globe; Post and Gatty in the “Winnie Mae” took eight days.
 - iii. Heroes of the mountains: Attempts to scale Mt. Everest—Irvine and Mallory. Difficulties and dangers.
 - iv. Heroes of the stratosphere: Picard and his balloon. Value of such ascents.
- (b) *Explorers in the field of science.* Here the teacher could choose from a wide field. The contributions to agricultural knowledge of such men as David Fife, Dr. William Saunders, Seager Wheeler, etc. The work being carried on on the experimental farms; attempts to develop hardy fruit trees, etc.
- The work in the field of medicine—Dr. Collip and Dr. Banting with insulin, etc. Any other field

of experiment with which the teacher is familiar, and in which there is reference material easily available, could be substituted.

Suggested Pupil Activities:

1. This study offers exceptional opportunities for enterprise work of real value and significance. Material is readily available in the daily press, in magazines, in the bulletins of university and other research departments, and in advertising displays. Map work—pictorial or relief, sand-table or outdoor set-ups, actual experimental stations within the school or grounds, etc., readily suggest themselves. Definite attempts to relate this type of activity to some local community enterprise should be made. What would be a valuable line of exploration to follow within our own community?

Such work would present problems the successful solution of which calls for the painstaking care, persistence and thoroughness characterizing the scientist. Through such activities pupils could be led to appreciate more fully the contribution of pioneers in general.

2. Our last great frontier—the Peace River district, and North-West Territories.
3. A hydroplane trip with “Wop” May from Cooking Lake to Aklavik.

Study Seven: OUR HOME COMMUNITY IN ALBERTA.

Objective:

1. Civic and social habits toward community people and activities.
2. Interest in activities of everyday life.
3. Community plan of caring for the health and safety of all.
4. Family planning in caring for food, clothing, and shelter requirements.
5. Dependence of each member on the services and goodwill of others.
6. The interest of all members in community activities makes the community a pleasanter place to live in.
7. Communities grow if resources are plentiful.
8. How the child can assist.

Peoples in the Community.

Mother and family at home; workers in public buildings; workers engaged in looking after utilities and services; public officials with jobs to do for us; people engaged in industries and occupations; park and club officials. All members must co-operate for the common good.

History of the community; discovery; early history of the first settlers and early pioneers; the early traders; the missionaries. How close did the early explorers come to your community?

To-day our community is complex: we have the police for group protection; stores for food, clothes and shelter materials; well-equipped schools; churches and ministers; banks; garages; service stations; post office; telegraph offices; broadcasting stations; department stores; electric lights; hotel; theatre; milk wagon; ice man; good streets; good water; firemen; playgrounds; parks; stop-and-go signs. Deal with the function of each and how they are all related to our everyday life.

How the Community Lives:

1. *Group Protection of Life and Property*: preventing of fires; care in putting out fires; prevention of accidents on our roads and highways; careful marking of roads; road rules; railway crossings; railway signals; group protection of plants and trees; pure water; pure milk; hospitals.
2. *Group Conveniences*: coal a co-operative product; so with light and water. These goods and services are produced for our consumption. The club plan of all paying a little. The farm produces many of our needs.
3. *Group Transportation*: the family car; the street cars; the railway (government-owned or privately owned); private airways; bus; truck.
4. *Group Recreation*: our closest park; our Alberta parks; movies; sport grounds; exhibitions; picnics; parties; holidays; circus; music; books; church bazaars; nature study jaunts; bird studies; plant studies.
5. *Group Communication*: the telephone; telegraph; radio; mail; rural free delivery.
6. *Group Interest in Attractiveness of Community*: competitions for best lawn and garden; tree planting; boulevarding; shrubs and flowers around homes; uniform hedging; bird-houses; library.
7. *Group Education*: our schools; how supported; how we can help to make them worth while. Rural school; town high school; commercial schools; technical schools; university. All these types developed because our communities grew. The communities grew because people were attracted to them.
8. *Group Government*: local municipal unit (town or country); mayor and reeve; Government and Premier.

The Government carries out our wishes. We all haven't time to look after laws, order, health, roads, schools, and justice. We therefore choose men who, we think, will be good leaders to look after these things for us.

Our Community Rights and Duties:

One for all and all for one; co-operation; loyalty; intelligence; faithfulness; honesty; fairness; respect for authority; respect for seniors and officials; submission to the "majority-rule" principle.

ENTERPRISES:

The history of our community; life in a modern community; a map of the community.

LESSONS LEARNED:

- (a) As communities enlarge there is a greater degree of dependence on others in making our own living.
- (b) Perseverance wins the day and the frontier is made a home. Soon the frontier moves on.
- (c) Resourcefulness is the test of pioneer or frontier life. It is displayed in the ability to obtain food, clothing and shelter from the immediate natural environment.
- (d) The work of the pioneer or frontiersman is less difficult to-day than formerly because of the following advantages: machines, inventions, transport and communication.
- (e) Frontiersmen form a natural community. They wish to be together and work for the common good of all.
- (f) Strong leadership keeps the community intact and progressing even in the face of hardships, loss, and great difficulties.
- (g) Careful and wise planning of production and consumption develops foresight and independence.
- (h) Soon the community develops leaders. What kind of men and women should the leaders be? What should they do for us?

GRADE VI

The studies in Grade V present a treatment of the difficulties faced by early communities in the struggle with nature on the frontier. In Grade VI attention is still directed to this aspect of community life, but the emphasis is placed on the development and progress of a settled community.

Progressing communities developed mainly because of inventions, scientific discoveries, and the introduction of machines. They have reached the highly developed stage of the present day through co-operation and interdependence, which are the major functions of community life.

Careful consideration is given to the geographic factors which have vitally influenced the settlement and development of the community groups studied. Progress in civilization is thus viewed as a result of diversified living in the different natural-region communities of our Dominion, continent and Empire.

Scope of Studies:

A. *Early Established Communities—*

Study 1.—Early English Community Growth.

Study 2.—Early Latin-American Community Growth.

Study 3.—Eastern-Canadian Community Growth.

- B. *An Early Colonial Community*—
Study 4.—New England Colonial Community Growth.
- C. *Modern Canadian Communities*—
Study 5.—Eastern Canadian Community Growth.
Study 6.—Interior Canadian Community Growth.
Study 7.—Western Canadian Community Growth.
- D. *Modern Empire Communities*—
Study 8.—Britain, India, South Africa, Australia, New Zealand.

Aims:

1. *The community-growth idea:*
To help pupils realize that our modern community is a product of the earlier community of the past.
2. *Study of community experiments:*
To encourage pupils to study various experiments in the organization of mankind for community living, giving special emphasis to our Canadian communities.
3. *British and other traditions:*
To develop an appreciation of the colourful and romantic past of the British people, and to acquaint the pupil with the origins of the traditions valued in his community.
4. *A comparison of environments:*
To create interest in the present social, economic and political environment of the pupil by comparison with conditions in earlier times and in the other parts of the world.
5. *Canadian culture:*
To present the leading locational facts, and the main characteristics of the natural divisions of Canada.
6. *Use of tools:*
To familiarize the pupil with the use of text-books, maps, diagrams, pictures, graphs, indexes, statistical tables.
7. *Life in Canada:*
To develop an appreciation of the community problems of parts of Canada other than our own.

Study One: EARLY ENGLISH COMMUNITY GROWTH.

Communal or corporate life was the characteristic feature of the Middle Ages.

- (a) *Feudal England*.—The great power of the lord of the manor; protection given in return for services and dues (hence development of a "leisure" class); the village and its organization, orders of society and officials; agriculture, division of land; justice; amusements; travel; chivalry. Heroes and incidents of feudal times. William the Conqueror, the Crusades, Richard the Lion-Hearted, the Black Prince, Joan of Arc.

Comparison with communal groups within our own land—the Mennonites, Doukhobors, etc.

- (b) *The Town Community*.—Origin; charter; self-government; defence; architecture; costumes; markets and fairs; occupations of people; close relation of trade craftsmanship and agriculture; care of sick, control of health, disposal of rubbish; social services, education, etc. Comparison with modern city. The decline of manor life.
- (c) *Master Journeyman and Apprentice Community*.—Need of organization; the guild merchant and the craft guild; control and supervision of trade; comparison with government regulation and supervision to-day; comparison and contrast with the trade union. Continued decline of manor life.
- (d) *Medieval Church Community*.—Organization, government, laws; the monastery as the school, library, hospital, experimental farm and workshop of the community; influence and wealth.

Beginnings of the British Empire of To-day.

The world's greatest colonizer; what it constitutes to-day; proportion of world area and population included in the Empire.

Location of Britain, the mother country; size compared with Alberta and Canada; the transition in Britain from manor (serf) to miner.

Contrast in a general way the industrial life of Britain with the industrial life of eastern Canada. Location and development of the following: London and Montreal; Liverpool and Halifax; Glasgow and Quebec; Dublin and St. John; Belfast and Valleyfield. Map of the British Dominions.

Suggested Pupil Activities:

1. An English feudal community or any aspect of its life: town, manor, monastic guild, fair or festival.
2. Pupils organize as a guild society and carry on school work under this plan.

Study Two: Early Latin-American Community Growth.

Pupils will study one or more of the following communities:

- (a) *Tribal Indian Communities of Mexico*.—Overseer or ruler with feudal lords and serfs; remarkable civilization, rich, powerful; harsh rule. The Aztec settlements had made progress. Mexico City is old Aztec capital. Warlike people; fine armies; courts; farming; slave workers; wealthy merchants.

Story of Cortez and the arrival of the Spaniards; overthrow of the Aztecs.

Mexico To-day: a world treasure-house; people are mestizos and peons; most highly mineralized region of the world; experiments in government.

- (b) *Native Communities of Central America*.—The Maya Indians of Yucatan; palaces; cities; well-organized government long before Columbus' arrival; origin of

people in doubt; they carved stone, wove cloth, and made pottery.

Story of Columbus (1502) skirting the shores; Balboa crossed the 50-mile isthmus through jungle growth.

Central America To-day.—Governments unstable; warmth and moisture; important exports.

The story of the Panama Canal; de Lesseps and Goethals.

- (c) *Native and Slave Communities of the West Indies.*—Discovered by Columbus; annexed to Spain; Spain neglected colonization in search for gold; merchant adventurers of the Spanish Main (Drake, Frobisher, Hawkins, Raleigh); later pirates and buccaneers (Captain Kidd); "treasure" still found off Jamaica; Cuban independence; settlers on cane plantations; imported negro slaves from West Africa; later freedom; paid coolies from India and China work the plantations.

The West Indies To-day.—Government somewhat stable; higher standards of living in some parts; people; climate (hurricanes); rich soils; chief products (plantations of sugar-cane, bananas, pineapples, oranges, coffee, cocoa, tobacco); importance to Canada.

Suggested Enterprise:

An Aztec settlement of by-gone days.

Committee reports:

Why do so many people of Mexico live on the plateau?

Why are the important ports of Mexico and Central America on the east coast?

Value of the Panama Canal.

Study Three: EASTERN-CANADIAN COMMUNITY GROWTH.

The Seigneurie Community of Old Quebec.—Pioneers in this region—men like Champlain. System based on the feudal type of France. The seigneur's house, the farms, the habitant; government—governor, intendant and bishop; control autocratic; domestic occupations; recreation. Growth of population slow (compare rapid increase in New England colonies) due to rigid exclusion of all not acceptable to authorities; colonists of two types—agricultural and *coureur-de-bois*; interest in fur trade detrimental to agriculture, the basic industry of any country.

Comparison with the feudal manor of England.

Canada: A Huge Homeland.—The beginning of Canadian culture established along shores of the St. Lawrence; little known of Canada's vast size and of the tremendous task of settlement.

Comparison of size of this great homeland with that of other world countries. Use diagrams (stick graph) to com-

pare Canada's size with that of Russia, China, Australia, the United States, England, France, Germany.

Population sparse in old Quebec; sparse in parts of Quebec to-day; Canada's population is sparse and is concentrated along the south "strip". The old Quebec section is most densely populated part of Canada.

Try to find out why so many people can make a living in Quebec. (It is not because Quebec was discovered first.) Make a stick graph to show the density of Canada's population as compared with that of other countries larger and smaller than our own. Compare with a stick graph of comparative areas. Is Canada a land of snow and ice?

The Appalachian Community: A Machine-Age Community.

To-day the Appalachian region, including the Maritimes and the south shore of the St. Lawrence (approximately), is a great natural division or community.

The development of this community is related to the following outstanding features: surface and climate; fur farming in Prince Edward Island; asbestos mining at Thetford—importance to Canada and the world; uses of asbestos; coal mines of Nova Scotia; fisheries of the Grand Banks; why the area off the Atlantic coast is a good fishing ground; a trip to the banks in a Canadian fishing schooner, e.g., the Bluenose; types of fish; methods of fishing; dangers.

Lobster and sardine fishing along the inshore sections of the Maritimes; fruit growing in the Annapolis Valley; the importance of Newfoundland—the sentinel of Canada; aviation; submarine cable; fishing; iron ore (for Sydney, C.B.).

Study Four: EARLY COLONIAL COMMUNITIES.

The story of the early settlements on the eastern Atlantic seaboard—the Pilgrim Fathers and those who followed.

Motives of Settlers:

1. Discontent and restlessness due to tyranny and oppression in Europe (cosmopolitan nature of settlers).
2. Desire for freedom.
3. The commercial motive—trade and land. Pupils in imagination join a group of newcomers just landing at Jamestown; met on the quay by agents with land to sell—real estate agents; taken in parties, under competent guides, to locations far inland; experiences. Compare settlement in Western Canada much later.
4. Penal settlements and indenture.
5. Love of change and adventure.
6. Desire on part of "landless" men in Europe to own a piece of land. Make comparison with motives of settlers to-day. Why did so many people move up to the Peace River Block?

The Opportunity Community of New England.

Types of people who migrated; characteristics—independent, resourceful, determined, brave, hard working, self-

reliant. A community living upon the land and the sea but taking firm root in the soil; agriculture not neglected. Home-making; building villages, roads, etc., for permanence. Strong and weak features of this community. Contrast with French Colonies to the North. Reasons for ill-will between British and French.

The United States: A Highly Mechanized Community.

1. Size and population compared with Canada.
2. Climate and soil variation in the United States which enables the country to produce from a greater proportion of the land than can Canada. Progress in the use of farm machinery; gang ploughs, combines, threshing machinery replaced the single share-plough, the sickle and the flail.
3. Crops: wheat, corn, rice, potatoes, sugar, cotton; areas where grown.
4. Animal industries: cattle, swine, sheep, horses.
5. Mines and minerals: coal, oil, iron, copper, gold silver.
6. Brief comparison with similar regions in Canada: Appalachian—industry; Great Central Plain—agriculture; Foothills—ranching; Rockies—mining; South—plantations.
7. The development of New York, Chicago, Philadelphia, Detroit, Seattle, Los Angeles.

Suggested Pupil Activities:

1. Studies of various phases of the life in the New England colonies.
2. Comparison of the French and British colonies in the early days; or later, in 1700, say.
3. Dramatizations: Scenes from Life of Miles Standish; A Thanksgiving Day in a Puritan Colony.

Study Five: MODERN CANADIAN COMMUNITIES.

Eastern Canadian Community Growth.

As settlement progressed, interdependence increased because the communities became larger. This meant progress in production, consumption, distribution, transportation, communication and education. The large "natural-division community" increased production with the advent of machines and made great contributions to Canada's wealth. These changes (improvements) produced restlessness in people who had the "pioneer spirit", and dissatisfaction with the increasing order, system and regulation. They moved on to a new frontier, breaking the ground for less venturesome spirits who follow and profit from the efforts of the frontiersmen. So it continues while the frontier remains. We are on the edge of the last great frontier.

United Empire Loyalists.

(1) The reasons for their withdrawal from their old homes; (2) routes taken to Canada and the settlements made; (3) hardships of pioneer life in the new land; (4) contribution to Canadian life.

This study, if well organized, should prove valuable, because the lesson this episode in history teaches has still to be learned by men in general. The teacher will endeavour to project the thought of the pupils along lines which allow them to reach the conclusion that intolerance in any form is unwise and *unfair*, that it effects no worthwhile and permanent solution of a social problem, but on the contrary, often sows seeds of bitterness, preventing full co-operation for generations. Comparisons should be made freely with situations to-day; e.g., the treatment of minority groups in many European countries. Sympathy—ability to understand how the other man feels and thinks. Consideration of the courage and persistence of the United Empire Loyalists. Contribution made by those who refuse to sacrifice an ideal. Reference here to men of foresight, inventors, etc., who have persistently followed an idea to final success. Our debt to such men and women. The value of toleration and open-mindedness.

The St. Lawrence Lowland Community: a Highly Mechanized and Industrial Community.

To-day this concentrated community is a dwarf in size, but Canada's giant in wealth.

Characteristics of the Community.

Vegetation: Types of hardwood trees; bush cleared (later furniture industry).

Climate and Surface.

Products: vegetables; tobacco; honey; maple syrup.

Fruit: apples and peaches of Niagara Peninsula.

Fish: fresh water lakes and rivers.

Power: Niagara Falls.

Canals: Welland Ship Canal.

Manufacturing: Why the leading manufacturing region of Canada should be in southern Ontario and southern Quebec; power; raw timber and minerals of interior Ontario and Quebec; local market, ideal transportation route. Associate principal manufactures with the centre in which each is produced. Story of the growth of Montreal, Canada's metropolis.

Suggested Pupils Activities:

1. Study of some phase of the United Empire Loyalist settlement.
2. Examination and report on conditions to-day in Europe similar to those of the United Empire Loyalist story.
3. Montreal—our metropolis.
4. Reports: The story of engines; uses of electricity. Topics suggested by the outline.

Study Six: MODERN CANADIAN COMMUNITIES.

Interior Canadian Communities.

In these parts of Canada the frontiersman still continues his struggle against the forces of nature. The interior regions of Canada are difficult places in which to live. Protection and

conservation of life, production, distribution, consumption, transportation and communication still remain unsolved. An advance is being made along the south fringes to overcome these handicaps. The æsthetic phases of life (religion, recreation, education) are likewise unsolved problems. This region will remain the home of the trapper, the miner and the lumberman.

The Canadian Shield.—Mechanization has merely skimmed the surface of possibilities. The machine is more concerned with extraction of resources than with the development of a high degree of human comfort.

Surface: rugged, rocky and timber-covered; wealth of power from rapids and rivers; no mountain barrier; road and railway construction difficult; the advent of the airplane and hydroplane.

Climate: severe; cold in north and warmer towards south around the Great Lakes; Hudson Bay exit not of great value, but it moderates the climate around the Clay Belt.

Mines and Minerals: great variety; gold-fields; deep mines; story of Sudbury; nickel mines; Great Bear Lake, radium.

Lumber: Canada's forests cover about one-third the Dominion; areas of pulpwood; characteristic trees; life in a logging camp in the Ottawa Valley; why Canada has become the world's largest pulpwood resource; trade with the United States; visit to a paper mill; location of representative paper milling centres.

Canada's Transportation (machine achievement) :

Canada's transportation routes fringe the southern boundary, serving about one-half of Canada's surface. Canada leads the world in railroad mileage per capita, but little of it serves this Canadian Shield giant.

In southern Canada there is a network of roads, railroads, poles and wires; there are also automobiles, trucks, buses, trains, telegraph and telephone lines.

- (a) The C.P.R. in Canada; the story; route (it kept away from the Canadian Shield); the R.N.W.M.P.
- (b) The C.N.R. in Canada; story of difficult construction in northern Ontario; story of the Quebec Bridge and its two failures; story of Canada's first railway.
- (c) Great Lakes and St. Lawrence system as a commercial highway, receiving products of the Canadian Shield; east and west traffic; canals.
- (d) Northern rivers of the area used where the railway does not serve.
- (e) The aeroplane in Canada; use in mining; transport of ores to assaying centre; mercy flights; transport of missionaries and north pioneers; direct communication with civilization in the south. Northern air route of the Mackenzie district.

Proposed Enterprise:

A mining camp.

Exercises:

Movie strips (sketches or pictures, also constructions).

(a) The story of water transport: log canoe, raft, row-boat, sailboat, barque, brig, steamship (Queen Mary).

(b) The story of land transport: man (still used in Asia); animals; wheels (cart and coach); horseless carriage; automobile and truck; bus; train (steam and electric).

(c) The story of air transport: balloons, gliders, aeroplanes, Zeppelin (Graf Zeppelin and Hindenburg).

Report: Present a paper or a short talk on the topic: "The Development of Canada Has Been Promoted by the Construction of Its Railroads".

Study Seven: WESTERN CANADIAN COMMUNITY GROWTH.

The farming communities of our great plains form the pivot of our western Canadian life. The introduction of machinery in farming operations, and in the home, has made our communities pleasant places in which to live. The automobile gives rapid linkage with towns, cities and surrounding districts; the radio links us with the world; the newspaper keeps us informed on events of current interest. No longer are we isolated as was the early frontiersman.

The problems of production and of distribution are of major concern to the plainsman because of the cost of transporting his goods and services to markets. His consumed goods likewise have to be transported long distances from eastern divisions or over a long mountain haul from the west coast.

(a) *The Great Central Plain Community*: A Mechanized Community.

The story of La Vérendrye, the missionaries, the police, and the railway was given in Grade V.

An important problem in western Canadian life is the linking of eastern and western interests—manufactured goods of the east and raw materials of the west. Communication and transport is costly; trade demands cheap haul. This is limited by cost of operating vehicles and transportation. The loss on low freight rates; seaports are far removed to the east and west (distance and mountains).

Western Agriculture: Nearly one-half of Canada's people are engaged in agriculture, which provides raw materials for many Canadian manufacturing establishments. Farm products form the bulk of Canada's exports.

Climate and Surface: relation to agriculture; steppe land; bush, northern tundra, park-land and prairie; degrees of fertility; one-seventh of Canada's land fit for farming; map of fertile areas.

Wheat "Belt", with apex to the north in Peace River district; importance of Canadian wheat production (a world bread-basket); increased machine production of wheat; advantages and disadvantages of wheat belt for cereal production; wheat outlets. Canada's wheat stands first in British markets.

Live Stock: (1) Life on a cattle or sheep ranch in Alberta. Compare with a stock farm in Ontario. (2) Why Quebec and Ontario lead in butter and cheese production, and not "Our Western Community". The relation of hog-raising to dairying. Over 99% of the bacon exported from Canada goes to Great Britain.

Minerals: coal, gas, oil; location of fields.

Fish: fresh water fisheries of lakes and rivers.

The story of Winnipeg; the importance of Winnipeg.

(b) *The Western Cordillera Community*.

The machine has done much to make this community progress, but the mountains, plateaus and rugged valleys are still barriers to be overcome.

The stories of Vancouver, Thompson, Fraser, Cooke and Gray were given in Grade V. Relate these stories to the studies following.

Review the story of the gold rush to British Columbia.

Surface and Climate: a coastal community; advantages; a rugged country of mountains, minerals, timber, fur, swift rivers and beautiful scenery; mild climate except in the sheltered plateau and valleys.

Lumber: This region supplies the greater part of the timber for making lumber. Why? Valuable trees and uses; logging methods. Contrast valley camps with those in eastern Canadian valleys.

Mines and Minerals: variety; contrast between placer mining of gold and deep mining of the Canadian Shield. Importance of production of silver and of the three basic metals (lead, zinc and copper). Canada ranks first in production of nickel and asbestos; second in world production of radium and zinc; third in gold; fourth in zinc. Smelter at Trail, Anyox, Britannia Bay.

Fish: Salmon canneries of Fraser and Skeena Rivers. British Columbia leads the Canadian Provinces in total value of fish production.

Suggested Enterprises:

Life on an Alberta Ranch.

The Salmon Industry.

Studies to Be Taken as Special Report Topics:

- (1) *The Provinces of Canada*: Locate on a map; compare graphically the areas of the Provinces, thus: (a) those larger than Alberta; (b) those smaller; (c) those of about the same size.

(2) *Commerce and Seaport Trade*: Pictorial representation of Canada's export trade related to the community studies; why most of Canada's trade is with Britain and the United States; nature of import trade; trade with Australia, the Orient, continental Europe, and South Africa.

(3) *Development of our Great Ports*:

(a) *Eastern Ports*: Montreal, St. John, Halifax.

(b) *Western Ports*: Vancouver, Victoria, Prince Rupert.

(c) *Bay Port*: Churchill.

(4) *Climate Factors and Their Application*:

(a) Altitude (Trail and Victoria); (b) latitude (Peace River and West Indies); (c) body of water (Vancouver and Calgary); (d) winds (east and west coasts of Central America); (e) temperature (Edmonton winters and California winters); (f) interior or exterior position (oceanic Halifax and continental Saskatoon); (g) precipitation—application of all factors; (h) ocean currents (Bermuda coral islands and coast of Labrador).

Topics for Report:

Natural Resources of Canada Which Make Her Potentially Great.

1. Coastwater and harbour facilities—east, west and north.
2. Fisheries: value, grounds; inland and inshore; deep sea; people engaged.
3. Minerals: types and where mined.
4. Forests: area, value, revenue, exports, products.
5. Agriculture: value, proportion of land cropped; grains, hard wheat, improved varieties; routes; average yield compared with that of other world producers; stock raising, dairy farming; fruit farming; irrigation.
6. Furs: difficulties of early trapping, domestic breeding, value.
7. Water power: distribution, industries using it, effects on fuel zone, effects on eastern farm life.
8. Scenery and natural beauty: parks, preserves; scenic variety from coast to coast.
9. Manufacturing: raw materials, labour, markets, list of manufactures.
10. Transportation map of main lines.
11. Airways.
12. Communication: telegraph, telephone, Radio Commission.
13. Water transport: rivers, inland waterways, St. Lawrence system, canals, merchant marine, Hudson Bay route.
14. Advantages and disadvantages of the proposed Great Lakes-St. Lawrence Waterway.
15. Trade and distribution: exports and imports.

Report:

A world map showing where my breakfast comes from.

Study Eight: MODERN EMPIRE COMMUNITY GROWTH.

A study of some Empire communities developed by the Motherland.

Reasons for Britain's importance as a colonizer:

1. Her position.—Sea routes converge and pass close to her shores. Position of London.
2. An island people, forced to develop seafaring habits and skills.
3. Island climate keeps people vigorous and alert. Harbours are always open and are numerous.
4. Wool of finest quality is a British product in demand all over the world. Development of a strong merchant marine.
5. Long experience in meeting peoples of various races; development of skill in governing subject races; democratic tradition required that Motherland extend similar privileges to those parts of the Empire whose advancement warranted self-government. Hence development of a "Commonwealth of Nations"—the "common weal" or good. A study of some of the problems facing Britain to-day, particularly in India.

(a) *A Northern Hemisphere Community.*

Life in India:

Study of the work of the East India Company; Clive and Hastings (compare Hudson's Bay Company). Problems of government—what would be fair? Gandhi and what he represents. Differences in caste, religion, culture, etc. Characteristics of the people—community unrest.

The Indian Empire.—Immense population; chief products—essentially agricultural; British contributions—railroads, telegraph and telephone, irrigation, police, roads, education, modern farm methods, sanitation, industrialization. Effects of modernization (on Lancashire, for example).

Cities of Delhi, Bombay, Calcutta.

(b) *Southern Hemisphere Communities.*

- (1) *Life on a Boer farm*; brief story of Vasco da Gama; early Dutch settlement; Cecil Rhodes; Kruger; loss of the Birkenhead. The machine invasion is gradually penetrating into the interior of South Africa.

Britain displayed ability to handle both a dual nationality and a dual colour problem. Compare the situation in Canada. Attitude of Europeans to natives to-day; wisdom of attitude; fairness (compare Quebec).

Union of South Africa.—The whites (Boers and English); the blacks (Bantus, Kaffirs, Hottentots and bushmen); fruit-land climate like California; plateau and steppe structure like Canada (west); location and development of Johannesburg (compare with

Trail, B.C.) ; Cape Town (compare with Los Angeles) ; Kimberley (compare with Sudbury).

OR

- (2) *Life on an Australian Sheep Ranch*.—Review “roaring days” of 1851 gold rush; the one-colour experiment and dangers of same.

The Commonwealth of Australia.—As in Canada, the introduction of the machine is mostly in the south. The people (aborigines and whites) ; fruit-land climate in the south like South Africa and California; jungle country to the north; ranch-land in the foothills; great desert to the west; isolation from the rest of the world (the “lonely” continent) ; sheep-raising industry; reasons for the importance of Sydney and Melbourne; trade with Canada.

Dominion of New Zealand.—A nearby Australian neighbour; the Maoris; contrast in climate with Australia (small size; mountains; ocean effect; small north-south extent). Agriculture.

Important learnings or concepts developing out of the studies:

- (1) Modern community life demands large amounts of food, clothes and shelter materials; also tools, fuels, luxuries.
- (2) Discoveries in science and knowledge of the facts of health make possible a concentrated population.
- (3) There is a variety of recreation available in our modern Canadian communities.
- (4) Science has developed and continues to develop new forms of plants and animals to suit conditions and demands.
- (5) Modern invention and discovery make our home conditions better.
- (6) Machines demand increased precaution in safeguarding life in our communities. (Roads, railroads, factories).
- (7) Machines (electrical, gas, oil, steam, water) and inventions speed up production and call for increased co-operation and interdependence.
- (8) Increased production demands rapid and efficient transportation to export and exchange goods and services.
- (9) Machines make shorter hours of work possible and give more time for pleasure and recreation.
- (10) Employment, consumption and distribution (wheat gluts, coffee gluts, etc.) are the major problems of our machine age.
- (11) National leadership in the world of trade demands a high degree of skill among the workers, greater specialization of the workers in business, in the factory and on farms, a high class of product in order to be in demand, a great variety of goods from agricultural and industrial communities, and mass production.

REQUIREMENTS OF THE COURSE IN SOCIAL STUDIES

A. General Requirements.

1. *Planning by the teacher.*—The teacher will find it necessary to plan the activities, jobs, and learnings, placing them at such a grade level as will arouse the pupils' interest and promote their mental growth. By checking carefully, the teacher can arrange that during a three-year cycle the enterprises include all of the units outlined in course in Social Studies. *See the table on page 143.*
2. *Purposeful classroom experience.*—The pupils will participate in activities related to social life which require them to plan, to suggest, to co-operate, to construct, and to evaluate.
3. *Problem-solving.*—The instruction must be of a kind that appeals to the *active, thinking* pupil, rather than to the passive, non-stimulated absorber of facts. The pupil should learn how to collect material for his problem and to select what is pertinent; how to secure necessary help; and how to test his results.
4. *Making the studies centre in community life.*—The logical centre from which all school studies, activities or enterprises, radiate is the mode of social living in the community. Social life, both past and present, is the core of every school programme linking education with life.

B. Pupil Attitudes.

The course should induce (1) the spirit of teamwork in solving group problems; (2) an attitude of rational enquiry towards all social problems; (3) a disposition to measure results in terms of community welfare; and (4) a sense of civic responsibility.

C. Insights and Appreciations.

1. Man's present and future modes of social living are conditioned in part by his social heritage. We must therefore understand the ways of life, past and present, on our continent, in our Dominion, and in our Province.
2. Throughout the ages, man, in the person of the pioneer and frontiersman, has struggled against the forces of nature to improve his mode and standard of living. The common interest of all mankind is the "business of living", which is to satisfy the fundamental needs for food, clothing, shelter, fuel, and tools.
3. Man's ways of life are "physical-social"; that is, they are social reactions to a physical environment. Examples are seen in the ways by which communities of different types supply their needs.

4. We live in "the machine age". Our "civilized" communities are "mechanized"; which means that both in work and in play the machine is an important part of everyday life.
5. The machine has made a fundamental change both in man's ways of supplying needs and in his modes of social living.
6. The remarkable development in transport and communication, from the primitive types of ages past to those of the present day, has served to link people together, and to break down racial, national and religious barriers. The newspaper, locomotive, steamship, automobile, aeroplane and radio have made our large world small.
7. Human society has always, to a greater or less degree, been organized on the "club" plan, which depends for success on agreement and accord in the governed group.
8. Communities differ in social type, and largely for that reason they are interdependent. Few are the communities that can live "unto themselves alone".
9. As we learn more about communities other than our own, we become sympathetic and tolerant towards all peoples of the world community.

D. Special Abilities.

1. To read, speak, write, listen, and study, intelligently.
2. To follow instructions capably.
3. To respond to situations requiring neuro-muscular skills.
4. To use references, assemble material, and organize information.

Note.—Teachers who use the enterprises of Division II, i.e., the Social Experiences, will be able, by referring to the table on the following page, to plan a three-year cycle for Grades IV, V and VI that will cover all of the studies of this course in Social Studies.

DIVISION II
THE ENTERPRISE CYCLE OF ALTERNATION
CHART OF SCOPE OF SOCIAL STUDIES IN RELATION TO ENTERPRISE ACTIVITY
A Guide to aid the Teacher in planning an Enterprise Activity Programme.

Suggested Enterprise	Studies in Grade IV: Communities of People.							Studies in Grade V: Pioneer and Frontier Life.							Studies in Grade VI: Life in Early and Modern Settled Communities.							
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8
	Study No.																					
1. WATER AND LIFE	1 ^b	X	X	X	X		X	X	X	X		X	X	X						X	X	X
2. HOW CHRISTMAS CAME CANTERBURY						*X	X					X		†X				X				
3. THE SUN WORSHIPPERS	1 ^a	X	X	X				X	X		X	X		X		X				X		X
4. IN SEARCH FOR THE WESTERN SEA				X				X	X	X		X	X			X	X	X	X			X
5. FOREST AND STREAM	1 ^a		X		X	X			X		X	X										
6. HERE COMES SUMMER	X				X	X			†X	X				X		§X	§X	X				X

X—Phase of the Social Studies Programme to be dealt with by the enterprise technique. Content material to be adapted to the average level of the group so as to challenge the interest of senior members and to be within the capabilities of junior members of the division.
 *Toys. †Everest. ‡Family, Christmas at Home, and Community. §Contrast and compare.

Elementary Science

Including *Health Education*

PREFATORY NOTE.—*In the course which follows, Health Education has been combined, and to a large extent fused, with Elementary Science; and for three reasons:*

1. The rules of health are based on science, which provides the necessary background for the teaching of health.
2. When scientific principles have been learned, they can be usefully applied to healthful living.
3. Health Education is an activity, rather than theoretic verbalizing; and as such, it can readily be integrated with Elementary Science, by means of the enterprise procedure, in the Social Activities of Division I and the Social Experiences of Division II.

INTRODUCTION

The history of civilization is in the main the history of man's increasing control of his physical and biological environment. It is now generally recognized that man *can* and *must* control this environment for his welfare and happiness. Greater than ever before, therefore, is the need for a programme of science teaching in the elementary school. The conflict of science with ignorance and superstition cannot be revealed too early in the life of children.

A programme of education that will lead people to recognize the place of science in society, and will orientate them through intelligence in the world of natural phenomena, must portray the fundamental concepts of science, and show the value of scientific methods and attitudes. Some important themes in this programme are the following: the position of the earth in a vast universe; the great age of the earth, and its long periods of prehistoric life; the physical nature of the world, and the effect of physical environment on living things; the balance of nature, and the interdependence of living things; man's attempt through knowledge and organized effort to make the world a comfortable and healthful dwelling-place; man's learning about natural forces, and his harnessing them to do his work; the importance of scientific attitudes; the relation of cause and effect; man's conception of truth and of change.

This programme requires a steadily growing acquaintance with major principles and generalizations that will begin with

very simple studies in Division I, and continue with studies of increasing difficulty as the pupils advance through Division II, the intermediate school, and the high school. The teacher will of course recognize that the concepts of science cannot be taught to children as abstract principles. Nevertheless, it is the teacher's grasp of these concepts that will guide the children, and prevent their losing themselves in a maze of detailed information.

Aim and Procedure.

1. The aim of this course is to help the child orientate himself amidst the natural phenomena of his environment. The objective for the child is scientific understanding. In the traditional approach to elementary science through "nature study," the motivation of "wonder" led to the nature myth, personification and anthropomorphism, rather than to intelligent enquiry and a scientific attitude. It did little to establish in the child's mind the broad principle of cause and effect, which, as civilization advances, replaces belief in magic, astrology, and superstition. *In this course, the child begins to attain scientific understanding through his own observations, activities, and attempts to solve problems.* The course is presented as a series of challenging problems, to be solved in so far as possible by the scientific method. It is set forth in declarative sentences, which are arranged under large-unit headings. The sentences state the objectives that are to be reached by problem-solving. For example: the objective, "Leaves of plants send moisture into the air," is to be reached by means of the problem, "Do leaves of plants send anything into the air?" Both teacher and pupils will manipulate the actual factors of the environment; and the specific material used to solve the problem will be chosen from what is available in different schools. In this way the course can be made flexible enough to serve in a province like Alberta, where the environment is greatly diversified.
2. As the children solve problems, and in so doing arrive at the notion of cause and effect, they will also learn that *man's conception of truth changes*. Once man believed that a fact is a fact for all time; but now man knows that what appears to be a fact today may be modified by the discoveries of tomorrow. Hence the teacher will not suggest to the pupils that his words are infallible. He will co-operate with his pupils, helping them to realize that their solution of a problem may be modified in the light of more evidence. He will accustom the pupils to compare their conclusions with the conclusions of others who have worked on the same problem; and to examine, when authorities are referred to, *whether the authorities used the scientific method and stated their evidence.*

3. **The Scientific Method.**—For the elementary school, the scientific method is the method of solving problems by experiment. There are *seven steps* in an experiment, whether it is used as a group activity, an individual activity, or a class demonstration. They are as follows:

- (1) **Problem:** What is to be investigated? (The statement must be exact.)
- (2) **Apparatus or Materials:** What is to be used?
- (3) **Method or Procedure:** How are the materials to be used?
- (4) **Observation or Results:** What happens? (Care should be taken to see that the pupils are not influenced unduly in their observations by preconceived ideas, or by what they expect to happen.)
- (5) **Conclusion:** the “answer” or solution to the problem. (If the experiment has not solved the problem, plans should be made to try again with a new experiment.)
- (6) **Verification:** What have other workers found? What do the authorities say? (Looking up references.)
- (7) **Application:** How can the conclusion be used to increase knowledge of everyday life, to facilitate everyday occupations, or to help in the solution of other problems?

4. An Illustrative Experiment.

Problem: Can water that has evaporated into the air be recovered from the air?

Materials: (1) Any pyrex glass flask with a one-holed stopper and a short bent glass tube. (If this is not available, a tea-kettle will do nicely.) (2) Water. (3) An alcohol burner. (4) A stand. (5) A piece of cold metal. (Any cold metal object such as a cold flat-iron, skate, or poker will do.)

Method: Set up the apparatus. Light the burner and get the water boiling. When the water is boiling briskly, hold a piece of cold metal close to the place where the invisible water vapor, or, if you like, where the cloud of white steam, is escaping.

Observations:

- (1) Can you see the water vapor above the boiling water in the flask?
- (2) Can you see the water vapor just after it escapes from the spout or glass tube?
- (3) What did you observe on the cold metal?
- (4) Are you sure, or had you better test it?
- (5) Did the cold metal become warmer?
- (6) When the fire was removed did the rate of evaporation increase or decrease?

Conclusion :

- (1) Can invisible water vapor which has escaped into the air be recovered again?
- (2) Why did we use a *cold* piece of metal?

Application: State what you have learned in the form of a practical rule.

Teacher's Explanation.

We have learned that water is continually evaporating into the air, becoming an invisible gas that we speak of as "water vapor." We might well ask ourselves, "Can this water vapor be recovered from the air and again become water?" Let us be true scientists and answer this question by the scientific method. On the paper you will find instructions for an experiment that will make nature answer. Do the experiment now.

You have learned that water changes from a liquid to a gas more rapidly as it is heated. You might expect then, that water vapor, or water in the form of gas, would change back to liquid when it was cooled. What happened in your experiment? When water vapor is cooled, it condenses to form tiny droplets of water on the piece of cold metal. In the air, the moisture will condense on the tiny particles of dust always present in the air. (Have you ever seen these tiny particles of dust when you are looking at a sunbeam?) At first the tiny droplets of water, gathered on a particle of dust, are so small and light that they float in the air. Millions and millions of these make a cloud. A dense black cloud is merely a cloud with more droplets than a white, fleecy cloud. If the condensation of the water vapor continues, these droplets get larger and larger until they are heavy enough to fall as rain. If the temperature is below 32° F. or 0° C. when the condensation takes place, the moisture falls as snow. Thus, rain and snow do not fall *from* the clouds. Rain and snow are really the clouds themselves, falling to earth.

Thought Questions.

(Do not try these questions until you have done the experiment.)

1. Why do one's glasses become covered with moisture when he enters a warm house on a frosty day?
2. When the kettle has been boiling for some time in the kitchen on a cool day, why do the windows become coated with water?
3. On bath nights, you have probably noticed that the mirror soon becomes covered with moisture. Where does the moisture come from?
4. When the kettle is boiling on the stove, you see white "clouds" of "steam" about one inch from the spout; but between the spout and the steam you can see nothing. Why?
5. In what way are "steam" and "clouds" alike?
6. How do you explain the forming of clouds of steam, when a door is opened on a frosty day?

7. Explain why we can "see our breath" on a cold day.

N.B.—It is to be recognized that the foregoing procedure is much too elaborate for Division I, and for many of the objectives even of Division II. But the gist of the procedure can be applied to all objectives, however simple: gather materials, make observations, draw conclusions and apply them.

HEALTH EDUCATION

Stated below are certain *fundamental principles* underlying health teaching, which the teacher must keep in mind in this integrated course:—

1. The teacher should arrange her program of health teaching on the basis of the immediate needs of her particular group. Furthermore, the needs of the individual child should be met as far as possible.
2. Health behaviour is the main goal of health education. Emphasis should be placed upon what the child *does*, rather than upon what he knows.
3. The approach in health teaching should be positive rather than negative. Emphasis should be placed upon *what to do*; rather than upon what not to do.
4. In the field of health, abundant opportunity should be given for pupil activity; since children establish habits of right conduct by practice rather than by instruction.
5. Life situations furnish a setting for health teaching that is timely and welcome. The alert teacher is ever watchful for such opportunities. The fundamental principles of healthful living are persistent and continuous throughout the grades. The approach at each age level must be made on the basis of the natural interests of the children and their capacity to understand and react.
6. Repetition is absolutely essential to habit formation. The same health habits must be emphasized over and over, with new experiences to sustain interest and arouse desire for greater understanding and better accomplishment.
7. Children should be given as much responsibility as they can carry for their health practices and behaviour in school and at home. They must not be held responsible for factors which they cannot control.

The teacher's attention is also called to the following *health activities* which are essential in a good health programme:—

I. Maintenance of Healthful Environment.

Great importance is attached to the fact that the conditions under which children live in school are closely related to their physical health, academic accomplishment, and emotional attitude. Teachers and pupils should co-operate to make the school environment as healthful as possible.

Ventilation: At least two windows should open from the

top, preferably the first and last in the group; storm windows should be made to open; a draught should be prevented by window boards; temperature should be from 63 to 68 degrees, and should be checked by means of a thermometer; some provision should be made to add moisture to the air.

Lighting:—Shades should be adjusted to avoid light and to avoid glaring reflections. Translucent blinds are usually most satisfactory. If possible children should be allowed to move into the most favorable light.

Seating:—If seats are adjustable, they should be adjusted at least twice a year. The seat should be low enough that the child can put both feet flat on the floor when his hips are fully pushed back in the chair; the thighs should be horizontal, so there is no pressure under the knee; the desk should be elbow height; there should be room enough under the desk that the knees are not cramped. No child should be allowed to sit without support for his feet; an improvised footstool may be used if his seat is not low enough.

Cleanliness of Classroom:—An attractive classroom adds to the happiness of the children and helps to stimulate them toward habits of neatness. The school should be swept daily. Dusting should be done with a damp duster. Desks should be washed frequently. The floor should be scrubbed at least once a month. A sweeping compound should be used; the use of oil on schoolroom floors is not recommended. Windows should be cleaned as often as necessary.

Water Supply and Drinking Facilities:—An adequate supply of good water for drinking is very important. There should be a covered water container with tap or bubbler attachment. Individual cups must be used, and there must be supervision to make sure that they remain individual. Cups may be kept in small individual bags made of white cotton, that can be hung on the desks or in the cloakroom. The cups and the water container should be washed thoroughly in hot, soapy water at least once a week.

Washing Facilities:—An adequate supply of water, basins, wash benches, individual towels, soap and pails for waste wash water. Children should wash before lunch, after visiting the toilet, and at other times when necessary.

Toilets:—Indoor toilets of the chemical type should be maintained according to the instructions accompanying them. Outdoor toilets should be kept clean, free from flies, well lighted and ventilated, supplied with toilet paper, and should be inspected frequently by the teacher.

Playgrounds: The playground should be kept clean and neat. Some playground equipment should be provided, and there should be adequate supervision.

II. Health Examination.

This examination should be made by the teacher in schools where there is no school nurse making frequent visits.

1. **Weighing and Measuring:**—This procedure arouses an

interest in growth and is also an indication of the state of the child's health. If possible weigh children once a month; measure height twice a year. Gain in weight month by month should be emphasized and not the conforming to a standard or average on a weight chart. Bathroom scales may be obtained for a small sum and a measuring and weight chart may be obtained free from the Canadian Tuberculosis Association, Plaza Bldg., Ottawa.

2. **Eyes:**—Test each child's eyes by means of a Snellen's Eye Test Chart. The child should stand twenty feet from the chart and be able to read the twenty-foot row. Test each eye separately. Snellen's chart may be obtained from the Imperial Optical Co. in Calgary or Edmonton; or a good chart may be obtained free from the Canadian National Institute for the Blind, 1101 Broadway West, Vancouver, B. C. Even though the child's vision may appear to be normal according to the chart, watch for symptoms of eyestrain, such as headaches, sties, frowning, inflamed or watering eyes.
3. **Ears:**—Test hearing by means of a whisper test. The child should stand twenty feet from the tester, turned sideways with the distant ear covered with his hand. Whisper numbers of one digit and have the child repeat them one at a time. A child with normal hearing should be able to repeat most of the numbers correctly. Also watch for earaches and discharging ears.
4. **Nose and Throat:**—Watch for symptoms of unhealthy tonsils such as frequent colds, catarrh, swollen glands in the neck, earache. Watch for symptoms of adenoids, such as mouth breathing, frequent colds, earache, catarrh.
5. **Teeth:**—Make an inspection of the teeth using a wooden tongue blade. Notice condition of the teeth and gums. Watch especially for decay of the six-year molar.
6. **Skin and Hair:**—Watch for skin eruptions; notice tone and color of skin; watch for pediculosis.
7. **Posture:**—Check constantly for poor posture—round shoulders, flat chest, protruding abdomen, sloping shoulders, wing shoulder blades, etc. Try to ascertain the cause, such as heavy work, poorly adjusted seats, malnutrition, or faulty habits.
8. **Feet:**—Watch for abnormalities, for flat arches; notice how the weight is placed in walking; see that the child walks with feet parallel and does not toe in or out; notice types of shoes worn.

III. Morning Inspection.

The morning inspection is a "health review," and may be done as part of the opening exercises. In the junior grades it may be quite formal, each child co-operating in the inspection. In the senior grades, it may be done much more infor-

mally. The morning inspection emphasizes the practice of health habits, especially those of cleanliness and neatness. A mirror in every classroom hung low enough for the children to see themselves is a valuable ally. The daily inspection should not be a time for nagging and fault-finding, but should become primarily an appreciation of achievement and thereby a stimulation to greater effort. Habits of personal hygiene are checked; such as, cleanliness of face, hands and nails, teeth; neatness and cleanliness of clothing; possession of a clean handkerchief, etc.; and the teacher should also watch for symptoms of illness. Such symptoms are the following:

1. Sneezing and coughing.
2. Sore throat.
3. Running nose.
4. Vomiting.
5. Pallor, or flushed cheeks.
6. Inflamed eyes.
7. Skin eruption or rash.
8. Signs of fatigue.

Detection of early symptoms of illness may prevent the spread of a communicable disease in the school.

IV. Supervision of Noon Lunch and Activities **During the Noon Hour.**

The consideration of school lunches is exceedingly important. Not only does it bring up the problem of proper food, but it provides the teacher with a life situation which lends itself admirably to the development of many desirable habits and attitudes. The children should learn to wash their hands before touching food, to desire and enjoy the right kind of food, and to form proper habits of eating. The lunch can be made a social activity with good manners and happy conversation as natural outcomes. The teacher should encourage the children to bring a variety of foods and always something to drink, as milk, cocoa or soup. Every effort should be made to serve one hot dish at school during the winter months.

V. Mental Hygiene.

The teacher must keep in mind that mental health is more important than physical health, and that all the school activities contribute to the child's personality. The teacher may judge the progress a child is making towards a healthy personality by asking herself these questions: Is the child courteous and agreeable? Is he considerate of the rights of others? Does he face difficulties cheerfully? Does he concentrate on the task at hand? Does he co-operate with the group? Does he day-dream?

Good mental health is dependent upon good physical health. It is extremely important that defects be recognized and corrected early in life. Children cannot be expected to have healthy personalities who see things darkly and indistinctly; or who hear only part of what is said; or whose systems are poisoned by the absorption of toxic substances from

bad teeth or tonsils; or whose body and brain cells are crying for food because of poor nourishment.

Other factors that influence the mental health of a school child are the classroom—its general appearance, ventilation, lighting, seating, etc.; the teacher's appearance and manner, her attitude toward life in general and toward her work as an educator; the classroom procedure—whether the participation is real or artificial, whether the children are succeeding in the art of living day by day, and gaining satisfaction in the accomplishment of new tasks.

DIVISION I

Note.—It cannot be too clearly understood by the teacher that the following material is not prescriptive: that is to say, that it is not to be taught word by word and line by line. Few teachers could find time to cover all of this material; but all teachers can make judicious selections from it.

In the second place, it is suggested that a large part of the material can be used by the teacher, if, instead of teaching it as theory which must be set forth for learning, he induces his pupils to experiment with it, and get as much experience from it as they can. Obviously, the enterprise procedure is the one best adapted for this purpose.

PLANTS AND ANIMALS

1. Certain activities of plants and animals seem to be associated with the approach of fall and winter.

A. Many activities of plants are preparation for winter.

- (1) The leaves of some trees become brilliantly colored in late summer and fall.
- (2) The leaves of some trees fall.
- (3) The leaves of some trees remain green. These trees have special adaptations to winter hardships.
- (4) Many plants produce seed.
- (5) Seeds of plants are distributed in a variety of ways.
 - (a) Some seeds are distributed by wind.
 - (b) Some seeds are distributed by water.
 - (d) Some seeds are distributed by exploding seed pods; poppy, caragana.
- (6) Many vegetables mature in late summer and fall. During this season children have a good opportunity to eat vegetables and fruits.
- (7) Some plants live over the winter as bulbs, tubers, roots, and as dormant, living plants.

B. Some animals become less abundant as winter approaches.

- (1) Insects become less abundant.
- (2) Some insects live through the winter as eggs.
- (3) Some insects live through the winter as pupae.
- (4) Some insects live through the winter as adults.

(5) Toads, frogs, and turtles bury themselves in the ground, where they remain during the winter.

C. Some animals remain in a given locality during the winter.

(1) Some birds remain; e.g. sparrows, orioles, chickadees.

(2) Some wild animals remain; rabbits, wolves.

(3) Some animals that remain store food for use during the winter; squirrels.

(4) Some animals search for food much as they did during the summer; wolves, rabbits.

(5) Many animals develop a thicker coat of fur during the fall; rabbits.

D. Many animals fatten for winter. Much of their activity is in food-getting.

2. Human beings prepare for winter.

A. Human beings provide themselves with food, clothing and shelter for winter.

(1) They put on warm clothes.

(2) They store and preserve food.

(3) They store fuel.

(4) They provide a shelter for themselves and their families.

B. Children should prepare for winter.

(1) Children should put on heavier clothes in cold weather.

(2) Children should prepare for winter by building up resistance against disease. They should have sun baths in summer, and cod liver oil from November to April.

(3) Children should be careful in regard to their clothing. They should—

(a) Keep clothes as clean as possible.

(b) Remove day clothing at night, and wear clean appropriate night clothing.

(c) Wear wraps suitable to the weather.

(d) Remove outside wraps and rubbers when indoors.

(e) Hang up their wraps.

(f) Carry a clean handkerchief.

(g) Change their underwear and stockings frequently.

3. Certain activities of plants and animals seem associated with spring and summer.

A. Plants grow rapidly in spring.

(1) Buds of trees and shrubs develop into leaves and flowers.

(2) Seeds begin to grow.

(3) Leaves of trees become green.

(4) Fields become green.

(5) Many plants blossom.

(6) Spring is the active growing time of many plants.

B. Many plants produce flowers.

(1) Flowers develop from buds.

(2) Flowers develop into seeds and fruits.

(3) Summer is the flowering and food-storing time for many plants.

C. Animal life becomes abundant.

- (1) Some animals awaken from their winter sleep.
- (2) Some birds return to their summer homes.
- (3) Insects lay eggs from which insects develop.
- (4) Birds lay eggs from which young birds develop.
- (5) Frogs and toads lay eggs from which young frogs and toads develop.
- (6) Many animals are born in the spring.
- (7) Many animals return to their summer homes.

D. Where plants and animals live.

- (1) Many plants and animals live only on land.
- (2) Fish, tadpoles, and some insects live in the water.
- (3) Certain plants grow only in water.
- (4) A few animals burrow into the ground.
- (5) A few animals spend part of their time flying in the air.
- (6) Some animals live both on land and in water, e.g., frogs.

4. Blossoming time.

- (1) The plants that bloom in the fall differ from those that bloom in the spring.
- (2) Each plant has its time of blooming. For some it is short; for others it is long.
- (3) Seeds follow the blossoms.

5. Light and plants.

- (1) Plants which have green leaves must have light in order to grow.
- (2) Plants in a window will "reach for the light."

6. Food of animals.

- (1) Many animals eat plants.
- (2) Many animals eat other smaller animals.
- (3) Many young animals use milk as their sole food.
- (4) Many insects feed upon plants. The young often eat more than their weight each day. They eat all parts of plants.
- (5) Insects often feed on other insects and other animals.
- (6) Some birds feed largely upon insects. A few feed upon other animals.
- (7) Some birds eat fruit, seeds and buds.

7. Plants as food.

- (1) We eat the roots of certain plants; carrots, beets.
- (2) We eat the stems of a few plants; rhubarb, spinach.
- (3) We eat the leaves of several plants; lettuce, spinach.
- (4) The fruit and seeds are eaten most frequently; tomatoes.

8. Children should learn how to be healthy.

A. Proper food makes children grow and keeps them healthy.

- (1) At all seasons of the year, and especially during fall and winter, children should have fresh fruit, and one or two (raw) vegetables besides potatoes, daily.
- (2) Children need three or four glasses of milk every day,

a glass at each meal. Milk builds bone, teeth and muscle.

- (3) Children should avoid tea and coffee, and drink three or four glasses of water every day.
- (4) Children need some whole-grain cereal daily.
- (5) Children should eat only at regular meal hours, and avoid sweets between meals.
- (6) Children should also—
 - (a) Eat slowly and chew their food well.
 - (b) Be polite and cheerful during meal time.
 - (c) Wash their hands before eating, or handling food.
 - (d) Avoid eating food picked from the floor, ground or street.
 - (e) Avoid handling other people's food.
 - (f) Help to take proper care of food in the home, and to keep flies out of the house.

B. Children who have good teeth are more likely than others to be healthy. Children should care for their teeth by—

- (1) Brushing them regularly, night and morning.
- (2) Using their own toothbrush, and taking proper care of it.
- (3) Using a good dentifrice; such as a mixture of salt and baking soda.
- (4) Going to a dentist at least twice a year.
- (5) Eating the right kind of food to build teeth.

C. Children who keep themselves clean are more likely than others to be healthy. Children should—

- (1) Wash their hands before eating, and after coming from the toilet.
- (2) Wash face, neck and ears every day.
- (3) Dry hands and face thoroughly after washing.
- (4) Take a bath at least twice a week.
- (5) Use their own towel, wash-cloth and toilet articles.
- (6) Keep their nails short and clean.
- (7) Learn to use a nail file.
- (8) Refrain from biting their nails.
- (9) Wash their hair regularly.
- (10) Use their own brush and comb, and keep them clean.
- (11) Brush their teeth, night and morning.

D. Healthy children need plenty of sleep.

- (1) Children should learn to—
 - (a) Sleep eleven hours or more.
 - (b) Go to bed, and rise, at a regular hour.
 - (c) Sleep in the dark.
 - (d) Sleep with the window open.
 - (e) Sleep without a pillow, or with a low one.
 - (f) Relax during rest periods, at home or at school.
- (2) The proper bed-time for Grade I is seven o'clock; for Grades II and III it is half past seven or eight o'clock.
- (3) Sleep makes us grow, makes us strong, helps us to do our work better in school, keeps us healthy, and gives us more fun when we play.

- (4) We should get ready for bed by hanging up clothes, washing carefully, brushing teeth, and opening the window.

E. Healthy children and grown-ups exercise vigorously in the fresh air.

- (1) Children should—

(a) Spend part of every day in work or play out of doors.

(b) Take part in group games.

(c) Sit, stand, and walk with correct posture.

(d) Stay out of puddles, and keep warm and dry.

- (2) Correct posture means—

Walking with feet parallel, chest out, chin in, and abdomen flat; sitting, standing, and walking "tall."

- (3) Play out of doors makes one sleep better at night. It improves the appetite, develops muscles, and makes the bones grow straight and strong.

F. Clean homes and schools keep children healthy. Children should—

- (1) Keep the playground and the school-room neat and clean; put refuse and garbage in containers.

- (2) Use the toilets in a sanitary way.

- (3) Use the drinking facilities properly.

- (4) Close the doors to keep the flies out.

- (5) Avoid spitting on the floor or sidewalk.

- (6) Put wraps and playthings in proper places.

EFFECT OF COLD WEATHER

1. Water fills more space when it turns to ice.

(a) Freezing of water often breaks water pipes, radiators, pails, etc.

(b) Freezing of water causes the ground to crack and crumble, forming soil.

(c) Since ice takes up more space than water, it is lighter than water.

2. (a) Objects lighter than water float; objects heavier than water sink.

(b) Ice floats with more below the water than above it.

(c) Since ice floats on the top of lakes, it protects fish during the winter.

3. Freezing would cause great damage to plants if they did not prepare for winter.

4. A thermometer tells us how hot or how cold it is. It is better to use a thermometer than merely to guess about the temperature.

5. Changes in temperature cause people to change the kind of clothes they wear.

5. Water freezes at 32° F.

6. Plants and animals accustom themselves slowly to changing weather.

7. Water appears in three different forms: ice, which is solid; water, which is liquid; and steam, which is a gas.

8. Heat causes ice to liquefy; cold causes water to solidify.

THE AIR ABOUT US

1. Air surrounds man at all times.
2. There is water in the air.
3. There is dust in the air.
4. In schoolrooms and in houses during the winter, the air may not contain enough water for healthful breathing. This should be corrected.
5. Dust in the air is harmful, because there often are disease-causing bacteria on the dust. Sweeping and dusting of home and school should be done so as not to raise dust.
6. Man breathes and lives in air.
7. Drops of water form in moist air when the air is cooled.
8. Clouds are masses of small drops of water.
9. Plants give off water into the air.
10. Water gets into the air in several ways.
11. Air is in motion in the winds and in the schoolroom.
12. The air sometimes moves with force.
13. The wind sometimes blows dust and sand.
14. Fire must have air.
15. Fire sometimes causes great damage to property and life.
16. If your clothing should catch fire you should not run, because that gives the fire more air. The air should be kept away by smothering the flames with sand or with a rug, blanket or coat.
17. The nose and the throat are man's means of getting air into the lungs, and getting waste out of the lungs.
18. One should care for the nose and throat by—
 - (a) Breathing through the nose with the mouth closed.
 - (b) Blowing the nose gently, at all times, and being especially careful about this when one has a cold.
 - (c) Covering coughs and sneezes with a clean handkerchief.
 - (d) Carrying a clean handkerchief every day.
 - (e) Cleaning the teeth and rinsing the mouth regularly.
19. Fresh, gently moving air, at a temperature of 68° F., containing an adequate supply of water vapor, is the best for health.
20. Boys and girls should get fresh air by playing, working and sleeping outdoors whenever possible.
21. Clothes, bedclothes, rugs, etc., should be aired frequently.

THE SUN, MOON AND STARS

1. The sun, moon and stars are heavenly bodies that we see easily.
2. The sun gives us heat and light.
3. We receive less heat from the sun in autumn than in summer.
4. The sun rises in the east and sets in the west.
5. The path of the sun is closer to the southern horizon in winter than it is in summer.

6. We see the sun more hours a day in summer than in winter.

7. The earth, the sun and the moon are spherical (like a ball).

8. The sun lights one-half of the earth all the time.

9. The side of the earth toward the sun has daylight; the opposite side has night.

10. The sun is very much larger than either the earth or the moon.

11. The earth rotates, causing day and night.

12. The days grow shorter in the fall and longer in the spring.

13. We see the stars in the sky at night.

14. The moon appears to change its shape from night to night.

15. The moon is smaller than the earth.

16. Sometimes the moon can be seen in the daytime.

17. The sun is much hotter than any spot on earth.

18. The sunlight makes plants and animals grow; it makes people healthy.

19. The sunlight enables us to see things. Without light of some kind we cannot see at all.

20. Some things are seen because they are a source of light.

21. Other things are seen because they reflect light.

22. The eyes are the "receiving sets" for light. We should take care of them by—

(a) Reading only in a good light.

(b) Not reading when lying down.

(c) Maintaining correct posture, and holding reading material in the correct position when reading.

(d) Refraining from looking at the sun directly, or at very bright lights.

(e) Not rubbing the eyes.

(f) Wearing glasses if they are needed.

(g) Avoiding the use of a common towel.

(h) Getting an older person to remove a foreign body.

For minimum requirements, see page 178.

REFERENCES FOR DIVISION I

Our Wonderful Universe; Chant—Ryerson Press.

Nature and Science Readers, Book I-III; Patch and Howe—Macmillan Co.

Holiday Hill; *Holiday Meadow*; *Holiday Pond*; *Our Neighbors*; *First Lessons in Nature Study*; Patch—Macmillan Co.

Pathways in Science, Books 1, 2, and 3, and *Teachers' Manuals*—Ginn & Co.

Wild Flowers of Alberta; W. C. McCalla.

HOW TO PREVENT ACCIDENTS

1. Obey traffic signals.

2. Cross the street carefully.

3. Play in safe places.

4. Walk on left side of the highway.
5. Co-operate in fire drills.
6. Call an older person in a case of accident.
7. Never touch a loose electric light wire.
8. Never light a fire with kerosene or gasoline.
9. Be careful with matches.

DIVISION II

Note.—Teachers are asked to read again the Prefatory Note and the Introduction to the course.

PLANTS

A. *A Plant's Means of Protection.*

1. Plants have means of protection from animals, weather and other unfavorable conditions; e.g., the thistle.
2. In wet weather the bark of trees prevents the entrance of water. In dry weather it prevents evaporation.
3. The scales of winter buds serve a similar purpose.
4. A few leaves have a covering of hairs which hinders evaporation.
5. Many plants have thorns which protect them from animals and insects.
6. Some plants have a taste or an odour unpleasant to animals. This protects them from being eaten.
7. The dropping of the leaves of deciduous trees is a great protection against winter; e.g., willow, aspen, balsam, poplar, choke-cherry, pin-cherry, etc.

B. *Plant Study.*

Plants such as the dandelion should be studied systematically under the following heads:

- (1) where the plant grows; (2) the flower and seed;
- (3) the foliage; (4) the stem; (5) the root; (6) its life history.

Pupils should use this method to become familiar with the following: shepherd's purse, knotgrass or goosegrass, crocus, buttercup, wild rose, poplar, spruce, birch, wild aster, or other common plants in the school environment.

C. *The Parts of a Plant.*

1. *Leaves.*

- (a) Leaves of different plants have different forms, size, texture, thickness, colour and positions; e.g., geranium, wandering-jew, poplar, balsam, English ivy, begonia, willow, etc.
- (b) The epidermis of a leaf is strong, pliable, thin and translucent. These properties enable it to do its work. (Pull off strips of epidermis from the leaves of narcissus, tulips, hyacinths or geraniums, and examine.)
- (c) The veins of a leaf are the means by which transportation of water and food is effected. (Put the petiole of a fresh leaf in water coloured with red ink.)

(d) The green material in a leaf is chlorophyll and is necessary for the manufacture of food by the plant.

2. *Roots.*

(a) Roots are often long and fibrous; e.g., wheat, bean.

(b) Some roots are storehouses for food; e.g., carrot, beet.

(c) Roots take water and dissolved minerals from the soil, hold the plant in an upright position, anchor the plant, and often store food.

(d) Roots have fine, downy root-hairs near the end of the rootlets. These are the "mouths" of the root.

3. *Stems.*

Stems have the following uses:

(a) To raise the flower up so that it is seen by insects.

(b) To hold the ripened seeds and fruits high enough to be caught by the wind: dandelion.

(c) To hold the leaves exposed to the sunlight.

(d) To start new plants. The starting of new plants from cuttings is an artificial method of making upright stems start new plants. Trailing stems and underground stems do this naturally.

(e) To store food. (Underground stem, or tuber, as potato.)

(f) To carry sap upward and downward.

4. *Flowers.*

(a) The function of the flower is to produce seed.

(b) When flowers are picked, seeds cannot be formed.

(c) Many wild flowers must be protected if they are not to be exterminated.

D. *Conservation of Forest and Trees.*

1. Forests may be of assistance in preventing floods.

2. Forests may be of assistance in protecting animals, gardens, and fields against storms.

3. The trees furnish homes for many of the birds.

4. The trees retard the erosion of the soil.

5. Man uses lumber for many purposes.

6. Some trees common in Alberta are jack pine, tamarack, black spruce, white spruce, balsam fir, aspen poplar, balsam poplar, willow.

E. *Plants Prepare for Winter.*

1. The blue aster prepares by maturing its flowers, ripening its seeds, which the wind scatters, losing its leaves, and storing food in new shoots as parts of the plant above ground die.

2. Seeds are scattered in many ways.

3. Other plants, such as couch grass, mint, trees, shrubs, prepare for winter. (Study the method.)

4. Evergreens prepare for winter.

5. Biennials prepare for winter: carrot, parsnip, onion, cabbage.

6. Perennials prepare for winter. (Trees and shrubs.)

7. Mosses and lichens may be found in winter on trees, old buildings, logs, etc.
- F. *How Plants Grow.*
1. Plants require warmth, water, air, and food for growth.
 2. Green plants produce seeds which can produce new plants.
 3. Plants grow best when all conditions for growth are favourable.
- G. *Reproduction in Plants.*
1. Plants may be propagated by seeds, by stem cuttings, and by root cuttings.
 2. Some plants produce bulbs: tulip, onion.
 3. Some plants produce runners.
 4. Some plants produce root-stocks.
- H. *Economic Use of Plants.* (N.B.—This section lends itself exceedingly well to *enterprise treatment*.)
1. Plants furnish all of man's food. They supply sugar, starch, oils, protein, fibre, minerals and vitamins.
 2. Plants furnish much of man's clothing; e.g., linen, cotton.
 3. Plants furnish many other articles used by man; e.g., hemp, jute, straws for straw hats, coco fibre from coconut, lumber, paper, cellophane, rayon, celluloid, some explosives, etc.
- I. *Relation of Plants to Health.*
1. Plants give off oxygen, which is needed by man.
 2. Bacteria, which are a kind of plant, are responsible for the decay of dead leaves and other vegetation (as well as other materials). Unless this decay took place, the earth would long ago have been completely covered with rubbish.
 3. Yeast, a kind of plant, is useful in making bread rise.
 4. Many plants are the source of medicines.

THE SOLAR SYSTEM

- A. *The Earth We Live On.*
1. "Down" is toward the centre of the earth; "up" is away from the centre of the earth.
 2. Things are drawn toward the centre of the earth.
 3. The earth is made up of a solid, a liquid and a gaseous part.
 4. The earth moves around the sun.
 5. The earth has one moon.
 6. The earth is millions of years old.
 7. The surface of the earth is constantly changing. Examples: wearing away of surface by streams, winds, frost and other erosive agents; volcanoes, earthquakes; areas where land is rising and areas where it is falling; mountain building, delta formation; sand dunes.
 8. The earth is a very small body compared with the sun.

9. The earth is much larger than the moon.
10. The earth is a planet. There are nine planets and some have more than one moon.
11. The earth has been developed as the result of natural forces.
12. The climate of the earth in the past has not always been the same. (Glacial age; evidence of different climate shown in fossils of different ages.)
13. Many types of life that existed in the past are now extinct; e.g., dinosaurs.

B. *The Planets.*

1. The planets revolve about the sun.
2. Nine planets have been discovered in our solar system.

C. *The Sun.*

1. The sun is a tremendous globe of material, so hot that it is gaseous.
2. The sun is the source of light, heat and energy for the earth.
3. Objects are visible either because they are a source of light, or because they reflect light from other sources.
4. The sun is visible because it is a source of light.
5. The rising and setting of the sun is due to the rotation of the earth.

D. *Health.*

1. We should expose the skin to sunlight so as to develop a tan, but not a burn.
2. Sunlight kills germs.
3. Homes should be built with many windows, so that sunlight may enter.
4. Direct sunlight on the skin makes the body manufacture a vitamin which helps to harden the teeth and bones.
5. Sunshine raises one's resistance to colds and other infections.
6. Children have been cured of tuberculosis by exposure to the sun.
- 7 Sunshine helps bones to manufacture better blood.

E. *The Moon.*

1. The moon revolves about the earth.
2. During the period of the new moon, a small crescent is made visible by the sunshine; then the first quarter, then half, and later the entire surface of the moon appears to be illuminated.
3. On the average, the moon rises about fifty minutes later each day.
4. The moon does not have an atmosphere to support life, as the earth has.
5. The moon always presents the same side toward the earth.
6. The moon goes around the sun with the earth.
7. Of all the astronomical bodies, the moon is the nearest to the earth.

INSECTS: THEIR PLACE IN NATURE

1. There are many thousands of different species of insects.
2. Some insects are pests; e.g., flies, mosquitoes, lice, fleas, moths, etc.
3. Some insects carry disease.
4. Some insects are beneficial to man; e.g., bees, silkworms, lady-beetles.
5. Scientists study insects in order to find out which are harmful and which are beneficial. The scientist finds ways to destroy harmful insects; e.g., control of mosquitoes and house-flies.
6. Most insects multiply very rapidly when living under favourable conditions.
7. Children should know how to recognize an insect, and know the difference between an insect and a spider.
8. Children should know the life cycle of an insect; e.g., fly, cabbage butterfly, bee.

HEAT

1. Heat may be produced in a variety of ways: (*a*) by friction; (*b*) by burning (heat produced, accompanied by light); (*c*) by slow combustion (heat produced, but no light); (*d*) by chemical action; (*e*) by electricity.
2. Oxygen is necessary for burning.
3. Since the body obtains its energy from food, by a process similar to burning, it must have oxygen to support life.
4. Some fire extinguishers extinguish a flame by cutting off the supply of oxygen.
5. Some fire extinguishers extinguish a flame by cooling the fire below its kindling temperature.
6. When a child's clothes catch fire, the fire can be put out by rolling the child in a rug.
7. A burn should be treated by immersing it immediately in water (soda and water); or by applying a moist dressing (tannic acid).
8. Cold is absence of heat.
9. Heat causes solids, liquids and gases to expand.
10. All forms of heat may be traced to their original source: the sun.
11. Some materials carry heat better than others.
12. Clothing is made of material that does not carry heat very well.
13. The clothing used in different climates is adapted to the temperature.
14. Some good habits in regard to clothing: (*a*) wear clean, suitable underclothing; (*b*) put on extra wraps when warm after exercise; (*c*) remove extra wraps indoors; (*d*) remove damp clothing promptly; (*e*) know the kind of materials most suitable for keeping warm and for keeping cool.

ANIMALS (INTERPRETED BROADLY)

A. *The Social Life of Animals.*

1. Some animals lead social lives; e.g., ants, bees, wasps, beaver.
2. In some cases this social life aids them to protect themselves against the weather.
3. Some animals unite in fighting and protecting themselves against their enemies.
4. Some animals unite in establishing homes, such as quarters for winter, or homes for rearing young; muskrats, gophers, meadow mice, etc.
5. Some animals unite in gathering food for common use.
6. Some animals unite for entire life periods.
7. Community life has probably aided some animals in the struggle for existence.
8. Many animals live a great portion of their lives alone; such animals are called "solitary".

B. *Economic Value of Animals.*

1. Many animals are of value to man; e.g., fur-bearing animals and domestic animals.
2. Most of the birds are of value to man and should be protected; e.g., horned lark, red-winged blackbird, yellow-headed blackbird, cowbird, meadowlark, Baltimore oriole, American goldfinch, house wren, cedar waxwing, bluebird, mallard, Canada goose, Canada ruffed grouse, Hungarian partridge, etc.
3. Many foolish statements, which are merely superstitious ideas, have been made about animals; e.g., It brings bad luck to let a black cat cross your path.
4. Toads, frogs and most of the snakes are beneficial to man; e.g., garter snake, brown snake.
5. Some animals and birds are harmful.

C. *Adaptation of Animals for Preservation of Life.*

1. Some animals hibernate all winter; e.g., bears, gophers, frogs, toads and snakes.
2. Some animals hibernate part of the winter; e.g., squirrels and chipmunks.
3. Some animals store food for winter use; e.g., gophers, squirrels.
4. Some animals store fat before hibernating; e.g., bears.
5. Some animals do not hibernate; e.g., rabbits, horses.
6. Some animals migrate from one environment to another.
7. Some birds migrate regularly and travel long distances; e.g., Arctic tern, bluebird.
8. Many animals are concealed by their colour; e.g., rabbits, mice, birds.
9. By means of this concealment, animals frequently escape discovery by other animals.
10. The colour of animals assists them in capturing their prey.

11. The colour of some animals changes with the seasons.
 12. Many animals have special adaptations to their environment; e.g., adaptations for flying, swimming, wading, protection, securing food. Adaptations of fish for living in water—breathing, swimming, balancing, etc. Adaptations such as claws, foot pads, hoofs, horns, teeth, etc.
- D. *Human beings have many special adaptations for life.*
1. We have bones and muscles arranged to hold our bodies erect, and to move our bodies in the erect position.
 2. Since our body is planned to be erect, we should be careful to keep it erect by (a) sitting, standing and walking with correct posture; (b) avoiding incorrect positions when writing or sitting; (c) changing hands from time to time, when carrying books or other heavy articles; (d) knowing the test for correct posture, and checking ourselves from time to time; (e) wearing clothing that allows for good body development, especially shoes; (f) eating foods that build strong bones; (g) exercising our muscles adequately so that they may be large and strong; (h) seeing that our desks are adjusted so that they fit; (i) practising corrective exercises for round shoulders, protruding abdomen, etc.
 3. We have teeth arranged for biting and grinding so that we may get the food we need for life.
 4. Our teeth, in order to be healthy and able to do their work well, must have special care; such as the following: (a) a choice of foods that will help build strong teeth; (b) exercise for both the teeth and jaws by chewing food well; (c) visits to the dentist twice a year; (d) brushing the teeth at least twice daily, in the proper way; (e) using a tooth brush, and a good dentifrice, such as salt and baking soda; (f) playing in the sunshine; taking cod liver oil in the winter months; (g) special care if gums bleed.
 5. Eyes and ears are two of our adaptations for keeping in touch with our environment.
 6. In caring for the ears, we should (a) consult a nurse or physician for earache or running ears; (b) wash ears carefully with a soft cloth; (c) never put sharp objects into the ears; (d) never pull another's ears; (e) never blow the nose hard; especially when we have a cold; (f) never pull, or strike the ears; (g) remove a foreign body by floating it out with warm oil.
 7. In caring for the eyes, we should (a) never read lying down; (b) read only in a good light; (c) hold work in correct position and at correct distance; (d) avoid glare and shadows from artificial light; (e) have glasses properly fitted by an eye specialist, if glasses are needed; (f) avoid rubbing the eyes with the fingers; (g) use one's own towel and wash cloth to prevent eye infection; never use a public towel; (h) go

to an older person to have a speck removed from the eye.

8. Man has many other special adaptations; e.g., ability to think and plan, to remember, to be sad or happy. Happiness depends upon doing worth-while things successfully; upon friendships, co-operation with others, learning to be cheerful and to persevere at tasks.
9. The health of the nervous system and of the whole body depends a great deal upon sufficient rest: rest after meals, after playing a strenuous game; a change of work acts as a rest; ten hours of sleep are needed each night.

FOODS AND HOW TO USE THEM

A. *Diet.*

A boy or girl in Division II should have the following foods regularly:

1. Three or four glasses of milk daily.
2. One or two vegetables besides potato every day.
3. Two fruits a day if possible: one raw citrous fruit, or tomatoes, either fresh or canned.
4. Some raw vegetable every day.
5. At least four glasses of water every day.
6. Some whole-grain cereal every day, such as whole-wheat bread or whole-grain porridge.
7. An egg, or a small serving of meat, once a day.

B. *Behaviour Regarding Food.*

A pupil should—

1. Enjoy milk, dark breads, whole-grain cereals and vegetables.
2. Eat slowly and chew food well.
3. Refrain from eating between meals.
4. Be calm, cheerful and polite at the table.
5. Wash his hands before handling food.
6. Avoid exchanging food with others.
7. Use his own drinking cup, or a drinking fountain.
8. Protect food from dust and flies.
9. Wash dishes properly.

C. *How the Body Uses Food.*

1. Some foods build new cells and repair old ones—milk, eggs, meat, fish.
2. Some foods are more important for their heat and energy—cereals, vegetables, fruit.
3. Some foods keep us well—vitamins, and foods that contain roughage.
4. Some foods build bone and teeth—milk for calcium, and foods containing Vitamins C and D.
5. Digested food is carried to the cells by the blood.
6. Since food is carried by the blood, it must dissolve in the blood.

7. Digestion is a process by which food is broken down into simpler substances than can be absorbed and used by the cells.

D. *Man has learned to control nature so that an abundance of food may be produced.*

ELECTRICITY AND MAGNETISM

(N.B.—*The sole purpose of this section is to give the pupils experience. It is not to be taught as theory. Parts of it can be introduced in enterprises.*)

1. Two thousand years ago, all that was known about electricity and magnetism was—

(a) That amber picks up light particles when rubbed. It was not known that lightning is electricity.

(b) That certain peculiar heavy rocks containing iron would pick up bits of iron. These came to be called magnets because they were found largely in a country called Magnesia.

2. It was only a few hundred years ago that men began to find out more about electricity and magnetism.

(a) They found that magnets could be made by stroking iron with lodestone.

(b) They found that magnets have a north and south pole, and that like poles repel while unlike poles attract.

(c) They discovered that the earth acts like a huge magnet; and they invented the compass.

(d) They found that many other substances like amber would pick up things after rubbing. (Rub glass, fountain pens, etc., with silk, wool, cat fur.) Note sparks when combing hair in dry weather.

(e) They found what seemed to be two different kinds of electricity. Like kinds repel and unlike kinds attract.

(f) Lightning was discovered to be electricity (Benjamin Franklin).

3. *Ways to Make Electricity.*

(a) It may be made by rubbing things, but this kind is hard to control; it tries to jump away.

(b) It may be made by a chemical means. (Construct a simple voltaic pile; wet cells and dry cells. Make a zinc and copper cell with sulphuric acid.)

(c) It may be made by mechanical generators, like magnets or dynamos.

4. A current will flow only if there is a complete circuit.

5. Some things will conduct an electric current and others will not. (Test conductors and non-conductors, using a battery and a small flashlight globe.)

6. An electric current and magnetism are related to each other:
- (1) A compass needle turns when an electric current passes near it.
 - (2) This fact is useful in detecting electric currents.
 - (3) A strong magnet is made by winding a long wire into a coil and having it conduct a current.
 - (4) A piece of iron put into the coil makes a still stronger magnet.
 - (a) If soft iron is used, it is a magnet only as long as the current is flowing.
 - (b) If steel is used, the magnet will not be as strong, but the steel will remain a magnet after the current has stopped flowing. (The children should get actual experience in construction of electro-magnets.)
 - (5) Not only may magnets be made with electricity, but electricity may be made with magnets.
 - (6) These relationships between electricity and magnetism are used in many ways; e.g., telegraph (make one), door-bell, etc.
 - (7) In a motor, electrical energy is put in and mechanical energy is taken out.
 - (9) Using the energy of water-falls and steam engines, man is able to produce an abundance of electrical energy.
 - (10) An electric fuse is so made that when too much current passes through it a short piece of lead wire becomes hot and melts, breaking the circuit. This keeps a large current caused by a short circuit from heating the wires in the house red-hot and setting the house on fire.
 - (11) It is dangerous to play near high-tension wires.

AIR AND VENTILATION

1. The surrounding air presses with force against all objects.
2. The blue sky is not a dome, but merely the effect of the sunlight passing through the atmosphere.
3. The atmosphere surrounds all the earth, growing thinner as the height above the earth increases. There is very little air above a hundred miles.
4. Air expands when heated.
5. Over a source of heat such as a radiator, a stove, or an open fire, the air rises.
6. Cold air is denser than warm air.
7. Cooler air pushes in toward a heated area and this causes air currents and winds. Air occupies space.
8. Air has weight.
9. Air exerts a pressure of approximately 14.7 pounds

per sq. inch at sea level. This pressure varies with altitude and also varies from day to day.

10. Air is a mixture of gases. It contains nitrogen (about $\frac{4}{5}$), oxygen (about $\frac{1}{5}$), and small quantities of water vapor, CO_2 and other gases. Air contains dust.
11. Air is always in motion.
12. Air pressure can be used to operate many simple devices.
13. Air is necessary for life.
14. Air in rooms should be kept suitable by ventilation. Bedroom windows should be open.
15. Air is suitable for breathing when it is clean, at a proper temperature, moist and in motion.
16. Direct drafts should be avoided.
17. The ideal room temperature of air has been found to be from 63° to 68° F.
18. Overheated air increases susceptibility to colds, pneumonia and other diseases.
19. Flues and ventilators should remain open whenever there is danger of poisonous gases. Especially is this true in a garage when a motor is running, or in rooms in which there are fires.
20. Whenever possible, we should play and work in the fresh air; even in cold weather.
21. The function of the nose is to cleanse and warm the air we breathe. It is wise to breathe only through the nose.
22. One should blow the nose very gently so as not unduly to increase pressure on the ear drums and in the nasal passages. This is especially true when one has a cold because of the danger of infecting the middle ear and sinuses. One should cover the nose and mouth when coughing and sneezing.
23. The lungs are adapted to utilize air pressure in providing oxygen for the body.
24. The tonsils and adenoids have a definite function; but they sometimes become overloaded with bacteria. Then they can no longer do their work, and they become a source of infection to the body.
25. Voice is produced by air passing over the vocal chords. One should learn to pitch the voice in such a way that it will be pleasing.

MOLDS AND BACTERIA

1. Some plants, since they do not have flowers, do not grow or reproduce from seeds.
2. Molds belong to this class of plant life.
3. When left for some time in a damp place, foods and clothing often become covered with mold.
4. Molds and bacteria produce spores, which are like seeds.

5. The spores can be carried by the air, and thus they lodge upon food, where they start to grow.
6. Some bacteria are helpful; some are very harmful.
7. It is important to care for food in order to keep it from spoiling.
8. Food should be bought from stores in which it is properly cared for.
9. It is important to keep the body clean by—
 - (a) Care of the skin:
 - Washing face, neck, ears and all soiled parts of the body daily.
 - Taking a cleansing bath at least twice a week.
 - Taking a cool sponge bath in the morning, followed by a brisk rub, or using cool water on face and throat.
 - Using only an individual towel and washcloth, and keeping them clean.
 - (c) Care of the hands:
 - Washing hands before eating and after going to the toilet.
 - Keeping nails short and clean.
 - Drying hands thoroughly after washing, using one's own towel.
 - Avoid biting or picking nails; they should be kept short and clean.
 - Knowing how to care for chapped hands.
 - (c) Care of the hair:
 - Washing the hair every week or two.
 - Using one's own brush and comb, and keeping them clean.
 - Brushing and combing the hair carefully every day.
10. It is important to keep the school and home clean by—
 - (a) Helping to dispose of household waste and garbage properly.
 - (b) Using toilets and lavatories in a sanitary way.
 - (c) Using drinking fountains properly, or always using one's own cup.
 - (d) Helping to prevent the breeding of flies and mosquitoes.
 - (e) Leaving camps and picnic grounds in a sanitary condition.
 - (f) Understanding the method of waste disposal used in the community.
11. It is important to help in the struggle for control of infection, by—
 - (a) Co-operating in the health examinations given by teacher, nurse, or doctor.
 - (b) Keeping hands and inappropriate articles away from mouth, nose and eyes.
 - (c) Understanding the cause of colds and trying to avoid them.
 - (d) Knowing what to do if a cold develops.

- (e) Avoiding water from strange wells, springs or streams.
 - (f) Obeying quarantine and isolation regulations.
 - (g) Submitting to immunization against smallpox and diphtheria.
 - (h) Understanding the elementary principles of the germ theory of disease.
 - (i) Understanding how the body combats infection.
 - (j) Knowing the simple rules for controlling the spread of communicable diseases.
12. It is important to know what to do in cases of accident. Children should—
- (a) Be familiar with the proper use of common antiseptics (iodine and mercurochrome).
 - (b) Care properly for minor wounds; e.g., cuts, burns, scratches, frost-bites, sprains.
 - (c) Be able to apply a clean dressing to a minor wound.
 - (d) Know the meaning of infection, and how infection may be prevented.

WATER

(N.B.—*This section is suggestive for enterprise work.*)

A. Importance of Water.

1. Water is necessary for all forms of life; e.g., plants, animals; such as wandering-jew, begonia, cactus, birds, dogs, etc.
2. Many plants take up water by means of their roots; e.g., wheat, coleus, etc.
3. Water evaporates and becomes invisible. (Experiments and demonstrations.)
4. Water evaporates more rapidly when heated. (Demonstrations.)
5. When water boils it turns into steam. (Discussions and demonstrations.)
6. Steam under pressure may be used to do work.
7. Water dissolves many substances; e.g., sugar, salt, part of soil, etc.
8. Falling water is used to run mills and to generate electricity. (Where in Canada?)
9. Water is essential to the body. (Discussion and *enterprise work*.)
10. Water may be contaminated by drainage; especially from human wastes. (See Part "D".)
11. Water is best purified in large quantities by chemicals and by filtration.

B. Causes of Fogs and Clouds.

1. Water evaporates from rivers, lakes and oceans.
2. In hot, dry places water evaporates very quickly.
3. Leaves of plants give off moisture into the air. (Experiment.)

4. Fogs and clouds consist of water vapour that has been partly condensed by the cooling of the air. (Experiment.)

C. *Characteristics of Water.*

1. Water exists in three forms. (Discussion.)
2. When water changes to ice, it expands. (Demonstrations and discussion.)
3. The melting point of ice is the same as the freezing point of water.
4. Pure water in small amounts is practically colourless.
5. Pure water is odourless.
6. Pure water is tasteless.
7. The freezing point of water is 32° F. (Determine experimentally.)
8. The boiling point of water is 212° F. (Determine experimentally and explain the slight variation.)

D. *Water Supply in the City and Country.*

1. In the country, if the supply of water comes from a well, it is important that no drainage from the surface be allowed to enter the well. (Models, drawing, discussion.)
2. In the city, the water is purified to make it fit for drinking.
3. Boys and girls should know how to place wells so that the water will be pure.
4. Boys and girls in cities should know something of how the water is supplied.

STARS

1. Our sun is a star.
2. Stars shine by their own light.
3. Stars are suns.
4. The earth is one of several bodies that move about our sun.
5. Many stars are much larger than our sun, but they are so far away they seem quite small.
6. Light travels at the rate of 186,000 miles per second; yet some of the stars are so far away that it takes the light several hundred years to reach us.
7. Shooting stars, or meteors, are not real stars.
8. Children should become familiar with a few of the more easily seen constellations.

ACTIVITIES, EXPERIMENTS AND EXERCISES

Activities and exercises of the following types have proved to be of value for stimulating the pupils' interest in Elementary Science.

1. Reading for the following purposes:
(a) To gain information; (b) to find unsolved problems; (c) to reproduce ideas; (d) to gain facts for the

- solution of problems; (e) to find illustrations of generalized ideas.
2. Interpreting diagrams of analytical drawings.
 3. Interpreting graphs.
 4. Manipulating in laboratory experimentation.
 5. Observing demonstrations.
 6. Observing and interpreting natural phenomena.
 7. Making collections.
 8. Constructing models, appliances, etc.
 9. Evaluating popular ideas.
 10. Discussing social and civic problems on the basis of scientific knowledge.
 11. Keeping a science scrap-book.
 12. Keeping a science note-book.
 13. Taking charge of a science bulletin board.
 14. Taking part in a science club.
 15. Writing science notes for the school paper.
 16. Experimenting at home.
 17. Gardening.—The garden provides a good laboratory for the study of plants and animals. Problems with regard to soil, air, water, heat, plants, growth, insects, birds, interdependence and social responsibility arise daily.
 - (a) School horticulture.—The teacher should secure the help of a successful horticulturist in the district. Such simple projects, as flower beds around the flagpole, or a border of flowers at the front of the school, provide a suitable beginning. Provision should be made for both individual and group plots.
 - (b) Home gardens should be carried on by the children as a school project.
 - (c) Window gardens.—These make an excellent classroom activity. Boxes and cans may be used for the containers. Selection of the soil provides an opportunity for soil studies. Each child should have some responsibility for the garden. Cuttings of geraniums, fuchsias, begonias, wandering-jew and others may be used.
 18. Constructing and maintaining a balanced aquarium. Detailed information on the construction and care of aquaria, is available from the General Biological Supply House, 761-763 East 69th Place, Chicago, Illinois. Ask for the free Turtox leaflet on "Starting and Maintaining a Balanced Fresh Water Aquarium".

ACTIVITIES AND EXPERIMENTS IN CONNECTION WITH THE STORY OF THE EARTH

1. Visit a cut made by a railroad, or stream. Notice the solid rock with, perhaps, a layer of soil above it. What does it lead one to think the earth is composed of? What is happening to the exposed edges of the rock?

2. To show formation of rock strata: Choose a tall glass jar with straight sides and fill it about three-fourths full of water. Thoroughly mix equal quantities of gravel, sand and clay and add to the jar of water. Let this stand undisturbed for twenty-four hours. Then add more sand, gravel and clay, well mixed, and let this settle. This will show stratification due to the heaviest particles settling first.
3. Study stream erosion by visiting a stream.
4. To show how fossils are made: Mix up a paste of plaster of Paris and spread out on a flat surface. Place shells on the surface to form imprints. Fern leaves, skeletons, or other forms of life may be used in a similar way.
5. To find fossils in sedimentary rock: Find a piece of shale and soak it in some hot water. Break it up, and, when almost dry shake it in a sieve.
6. Make a rock collection and classify the rocks according to the way they are formed; i.e., sedimentary, igneous, or changed (metamorphic).
7. To show how crystals are formed: Make a saturated solution of copper sulphate. Suspend a piece of twine in the solution. Allow the solution to stand for twenty-four hours. Observe the crystals on the twine.
8. Draw a picture of an Allosaurus catching another dinosaur.
9. Draw a line 8 feet, 4 inches (100 inches) long. Mark off half of it. Let this space represent the time from the formation of the first rocks until the age when one-cell plant and animal life became plentiful. Set off 23 inches for the duration of the age of one-cell life; 12 inches for the age of sea life; 6 inches for the coal age; 6 inches for the age of reptiles; $2\frac{9}{10}$ inches for the age of mammals other than man, and $1\frac{1}{10}$ inch for the age of man. This might be worked into a frieze, with landscapes from each age in the allotted space.

ACTIVITIES IN CONNECTION WITH THE STUDY OF AIR

1. To show the presence of air:
 - (a) Drop a sheet of thin paper and note that it seems to be supported.
 - (b) Try to close a door suddenly.
 - (c) Swing a piece of cardboard through the air edge-wise; then swing it upright.
 - (d) Transfer air from one glass to another by filling one glass with water and inverting it in a basin of water so that it remains full of water.
2. To show that air occupies space: Use a bottle and a dish. Hold the empty bottle upside down in the dish nearly full of water, being careful that the bottle does not tip. Observe the level of the water in the dish and inside the bottle. Another method is to fit a funnel by

means of a one-hole stopper into a bottle. Try to pour water through the funnel into the bottle and note that the water will not run in because the air already occupies the space.

3. To show that air exerts pressure: Obtain an ordinary varnish can, or other tin can which can be fitted with a fairly tight stopper. First leave the stopper out, so that the air pressure is the same inside and out. Place heavy weights on the can and note that the can is not crushed. Put some water in it, and boil *with the stopper out*. Take the can off the stove and put in the stopper. Cool the can by applying cold water or snow to the outside. Note that the can is crushed as it cools.

Explanation: The steam drives out some of the air. When the can is cooled the steam condenses, leaving the inside of the can at a pressure considerably lower than the outside air pressure. The force of the air pressure crushes the can.

4. Air pressure will support the water in a tumbler of water inverted over water.
5. Discuss common applications of air pressure such as a fountain-pen filling device, a syringe, a vacuum cup, etc.
6. To show that air is elastic: Note the cushioning effect of the air in a bicycle pump by pushing suddenly on the handle.
7. To show that air is approximately $\frac{1}{5}$ oxygen: Obtain a tall cylindrical vessel, such as a graduate or a fruit sealer with straight sides. Wet the inside and sprinkle some iron filings so that they stick to the inside. Turn this upside-down in a basin of water. The iron will rust, using the oxygen, and the water will rise about $\frac{1}{5}$ of the height of the cylinder.

MAGNETISM

1. Where is the most attraction on a bar magnet? Try touching a bar magnet in the middle with a nail. Compare the attraction there with the attraction at the end.
2. Hang up one bar magnet and bring near one of its ends, first the north pole and then the south pole of another bar magnet.
3. To show that a piece of iron that touches a magnet becomes a magnet itself: Place a large nail on the end of a bar magnet, then dip the nail into a box of tacks. The tacks cling to the nail.
4. To show the nature of a magnetic field: Place two books about one inch apart on the table and place a bar magnet between them. Place over these a sheet of white paper. Sprinkle the paper with iron filings and tap the sheet gently. The "lines" can be made permanent

by coating the paper with shellac, letting it dry, proceeding as above, then carefully warming the paper so as to melt the shellac and again letting it dry.

5. To determine whether one pole of a magnet can be cut off: Magnetize a hat-pin, then cut it in two pieces.

HEAT

1. To show that compression produces heat: work a bicycle pump.
2. To show that friction produces heat:
 - (a) Rub hands together.
 - (b) Whet a knife on a whetstone and note the heat.
 - (c) Strike a match. Friction produces the necessary heat to set off the head.
3. To show that heat is energy: Heat melts ice to produce water, which then may be turned to steam. Energy is necessary to bring about this change, and heat is the form of energy used.
4. To test various solids to learn which are good conductors and which are poor conductors of heat: Take the end of a copper wire between the thumb and first finger of your left hand, and the end of an iron wire in your right hand. Hold the free end of each wire in the flame of a burner. Repeat, using a glass rod, wood, brick, etc.

PLANTS AND ANIMALS

1. To extract chlorophyll from a leaf: Heat the green leaf a moment in water. Boil it in alcohol. The chlorophyll will be left in the alcohol.
2. To show that highly specialized plants are unable to live out of their environment: Place water plants on a table and place a house plant in water.
3. To determine where growth takes place: Sprout beans between moist blotters. When the root is about an inch long, mark it off in equally spaced sections, using India ink. Watch the sections as growth continues.
4. To show how sap travels through a plant: Place some celery in red ink. After some time cut across the stem and observe the red ink marking the sap tubes.
5. To preserve specimens of fruits: Wipe and dry small pumpkins, cucumbers, apples, and small fruits. Cover with a coat of shellac and store.
6. To construct an ant's nest: Place ants' pupae and ants from an ant hill in a quart jar nearly full of loose soil. Put a piece of wet sponge on top to provide dampness. Sprinkle food on soil. Wrap jar with black paper. Set in a dish of water to prevent ants from escaping. Remove covering from jar to observe.

PLANETS

1. To show the relative sizes and distances apart of the planets:

PLANET	DIAMETER OF PAPER DISC OR CLAY BALL	APPROX. DISTANCE FROM SUN
Mercury	$\frac{1}{4}$ inch	1 inch
Venus	1 inch	$1\frac{1}{2}$ inches
Earth	About 1 inch	3 inches
Mars	Less than 1 inch	4 inches
Jupiter	15 inches	15 inches
Saturn and rings	15 inches	27 inches
Uranus	9 inches	33 inches
Neptune	8 inches	$7\frac{3}{4}$ feet
Pluto	About 1 inch	10 feet

HOW TO MAKE SOME EQUIPMENT

1. An alcohol burner is made from an ink bottle, a metal screw cap and some braided cotton string for a wick. Burn methyl alcohol in this.
2. An electromagnet can be built by inserting a soft iron bolt into a cardboard cylinder and wrapping the cardboard with insulated copper wire. The current is secured from a dry cell or voltaic cell.
3. A voltaic cell requires two strips, 1 inch by 4 inches; one made of copper and the other of zinc. Attach to each a piece of copper wire by making nail holes in the strips. Tack the strips on opposite sides of a piece of wood 1 inch wide. Fill a pint sealer three-quarters full of water and add two tablespoons of sulphuric acid. Place the metal strips so that they hang from the wood, into the sealer, as the wood stretches across the rim of the sealer. The current may be detected by placing a small compass over the wire. A deflection will be shown. After a few moments the current will become weak. Remove the strips, wash them in water and replace.
4. The action of the lungs may be shown by the following: Cut the bottom off a gallon clear glass jug (an old ink jug or one obtained from a drug store). Insert a one-hole stopper in the upper end. Through this stopper place a "Y" glass tube. On the "Y" ends of this tube attach two small rubber balloons. Over the bottom of the jug place a rubber sheet and attach it with adhesive tape. By pulling down the sheet, which represents the diaphragm, the air pressure inside the jug is reduced, and the balloons will fill with air. By pushing up on the "diaphragm" the lungs (balloons) will expel air.

MINIMUM REQUIREMENTS FOR DIVISION I

As a result of the first three years' work in science in Division I, pupils are expected to attain the following objectives:

1. They should have had at least one hundred actual experiences with the environment. These experiences should be simple, but so chosen that they contribute to the formation of generalizations in science. For example, by observing that water forms on the outside of a glass containing ice, or snow, pupils have one experience that will contribute to the simple generalization that there is water in the air at all times.
2. They should know the ways in which at least six animals and six plants are adapted to meet seasonal changes.
3. They should recognize at least fifteen animals and fifteen plants.
4. They should be able to explain how at least one plant, and one animal, depends on light, air, water, and heat.
5. They should know by experience at least three effects of cold weather.
6. They should understand by experience at least ten of the objectives relating to air.
7. They should have developed an interest in the sun, moon, and stars, and a desire to enquire about them.
8. They should know that experiments are a means of solving problems, and have solved at least five problems by the use of experiments.

MINIMUM REQUIREMENTS FOR DIVISION II

As a result of three years' study of science in Division II, pupils are expected to attain the following objectives:

1. They should be aware of the conflict between science and superstition, and have investigated three superstitions with a view to establishing true causes for the observations upon which the superstition is based.
2. They should be aware of the method by which at least six animals and six plants are adapted to meet seasonal changes.
3. They should have had actual experience with the adaptations of at least ten animals and ten plants to the special conditions of their environment.
4. Through observation, experimentation, and discussion, they should know the four main parts of a plant together with the function of each.
5. They should be aware of at least three methods of plant reproduction.
6. They should know that man is dependent upon plants in general, and know the details of his dependence upon six specific plants.
7. They should understand by experience at least ten of

the objectives listed under "Heat".

8. They should be able to recognize at least thirty animals and thirty plants.
9. They should understand by experience at least ten of the objectives listed under "Air and Ventilation."
10. They should have had at least fifteen observational or experimental experiences with water.
11. They should have developed an interest in simple facts about the stars.
12. They should be familiar with the scientific method of solving a problem, and have used that method to solve at least ten problems.
13. They should understand the interdependence of living things, and the dependence of living things on physical environment.

REFERENCES FOR DIVISION II

1. *Pathways in Science*, Books 4, 5 and 6, and Teachers' Manuals—Ginn & Co. This is perhaps the best single reference for Division II.
2. *The Science of Things About Us*—Ryerson Press.
3. *Heroes of Science*—Ryerson Press.
4. *Wild Plants of Canada*—Gage & Co.
5. *Bulletins on Injurious Insects*—Publications Branch, Department of Agriculture, Ottawa.
6. *Native Trees of Canada*—King's Printer, Ottawa.
7. *Our Trees and How to Know Them*—J. B. Lippincott Co.
8. *Open Doors to Science with Experiments*—Ginn & Co.
9. *Science Indoors and Out*, Books 1 and 2—The Educational Book Co.
10. Intermediate and High School Texts.
11. *Birds of Western Canada*—King's Printer, Ottawa.
12. *Everyday Science Projects*—Houghton Mifflin Co.
13. *Comstock's Handbook of Nature Study*—Comstock Publishing Co.
14. *Star Maps*—Extension Department, University of Toronto.
15. *Good Neighbors*; Haviland—Lippincott Co.
16. *Nature and Science Readers*, Books IV-VI; Patch and Howe—Macmillan Co.
17. *Wild Flowers of Alberta*; W. C. McCalla.
18. *Our Wonderful Universe*; Chant—Ryerson Press.

ACTIVITIES, EXERCISES AND EXPERIMENTS RELATING TO HEALTH

I.—*Nutrition.*

1. Keep an individual weight graph. Record weight once a month; see if there is a steady gain in weight. (Individual weight record charts may be obtained free

from the Canadian Tuberculosis Association, Plaza Bldg., Ottawa.)

2. Plan some good lunch menus and try them out in the school lunch. (Menus and lunch suggestions may be obtained free from the Cold Storage Branch, Department of Agriculture, Ottawa.)
3. Try to organize the lunch period at school so that a hot drink may be served in cold weather.
4. Make a health poster on foods.
5. Take baby chicks from the same hatch and try out some feeding experiments. Notice rate of growth on various diets.
6. Find out how various peoples have adapted themselves to the food in their environment. (Eskimos eat the entire animal, which gives vitamins. Chinese sprout grains to get Vitamin C, etc.)
7. Find out all you can about scurvy.
8. Make a food chart and keep account of the number of different vegetables you eat in a week. See if you can get one raw vegetable once each day.
9. Get samples of clean milk and dirty milk. Notice rate of souring.

II.—*Growing Strong Bones and Muscles and Keeping Good Posture.*

1. Test each other's posture by means of a plumb line or straight stick.
2. Check up faults in posture and suggest corrective exercises.
3. Check desks in classroom and try to adjust each one to fit the occupant.
4. Make a drawing of the foot showing the arches. Test the arches by wetting foot and placing on brown paper.
5. Keep two chickens or young rabbits under control conditions. Add cod liver oil to the diet of one. Notice rate of growth of each by regular weighing.
6. Keep a growth record of yourself for a year. Notice rate of growth in summer months and in winter months.
7. Practise some new game which requires muscular co-ordination. Notice how long it takes to get co-ordination. List the muscles that are used.
8. Learn to put on a bandage for a sprained ankle.
9. Learn to apply a splint for a broken arm or leg.

III.—*The Teeth.*

1. Make a chart showing the position of the various teeth.
2. Send to the Canadian Dental Association, 86 Bloor St. West, Toronto, for free booklets and charts on teeth.
3. Make a tooth powder with equal parts of salt, baking soda and camphorated chalk.
4. Find out how toothbrushes are made.
5. Plan a good diet for a person whose teeth decay easily.

IV.—*Care of the Eyes, Ears, Nose and Throat.*

1. Get a thermometer for the classroom. Make a graph of the room temperature for a month.
2. Try to test the humidity of the air. Make a simple wet and dry bulb hygrometer.
3. Find out the best methods for keeping down dust in the school.
4. Test the eyes of each person in the classroom, using a good eye chart. One may be obtained free from the Canadian National Institute for the Blind, 186 Beverly St., Toronto.
5. Test the hearing of each person, using the whisper test. Whisper numbers at a distance of 20 feet. The listener should be turned sideways with the distant ear covered. He should be able to repeat the numbers given in a low whisper.
6. Try to see that at least two windows in the classroom open from the top.

V.—*Cleanliness and Sanitation.*

1. Make a wash bench for the school, if one is needed.
2. Hem pieces of flour sacks to make individual hand towels. Put a tape at corner to hang them up.
3. Find out the history and composition of soap. Why is it a good disinfectant?
4. Make a poster on keeping clean.
5. Send a sample of drinking water to the Provincial Laboratory in Edmonton to have it tested.
6. Visit a local garbage or sewage disposal plant.
7. Visit a dairy or creamery.
8. Discover the breeding places of flies in the community and see if they can be eliminated.

VI.—*Clothing.*

1. Examine various pieces of cloth under a magnifying glass and notice differences in quality and weave.
2. Wash wool in warm water and hot water and notice difference in texture.
3. Find out how leather is tanned; how rubbers are made.
4. Find out how various peoples have adapted their clothing to their environment.

VII.—*Prevention of Diseases and Safety First.*

1. What is tincture of iodine? Find out why it is called a tincture. Why has it a red label?
2. Make a list of the poisons you have at home. See if they are all properly labelled.
3. Plan a first-aid kit for the school.
4. Make some sterile bandages for the school or your home by ironing strips of clean white cotton with a hot iron and rolling them in brown paper that has also been ironed.
5. Make a list of safety rules for pedestrians.
6. Keep an account of accidents reported in the news-

paper for a week or more and try to think out means of preventing them.

7. Find out how diphtheria antitoxin or smallpox vaccine is made.
8. Demonstrate first-aid procedure for simple accidents.
8. Estimate your responsibilities as a good citizen in the control of communicable diseases.

REFERENCES IN HEALTH EDUCATION

DIVISION I

PUPIL REFERENCES

- Charters, Smiley and Strang, *The Health and Growth Series*—Macmillan.
From Morning Till Night.
Happy Days.
Good Habits.
- Burkard, Chambers and Maroney, *Health, Happiness and Success Series*—Ryerson.
Health Stories and Practice.
Health by Doing.
- Hallock, Turner and Collins, *Malden Health Series*—Heath.
In Training for Health.
The Voyage of Growing Up.
- Towse, Mathews and Gray, *Health Stories*—Gage and Co.
Books I, II and III.
- Lummis and Schawe, *Health Readers*—World Book Co.
The Safety Hill of Health.
The Road of Health to Grown-Up Town.
- Gentles and Betts, *Habits for Safety*—Bobbs Merrill Co.

HEALTH AND SCIENCE

- McFee, *Little Tales of Common Things*—Crowell, N. Y.
- Carpenter, *The Clothes We Wear*—American Book Co.
- Hale, *Stories of Men and Nature*—Lippincott.
- Rush and Winslow, *The Science of Things About Us*—Little, Brown and Co.

SOURCES OF MATERIAL THAT IS FREE OR OF LITTLE COST

- The Cold Storage Branch, Department of Agriculture, Ottawa.
(Stories, charts, posters, leaflets, free.)
- Metropolitan Life Insurance Co., Ottawa.
- The National Dairy Council, 111 North Canal St., Chicago.
(Price list on request.)
- Dairymen's League Co-operative Association, 11 West 42nd St., N. Y. (Catalogue on request.)
- Cleanliness Institute, 45 East 17th St., New York.
(Catalogue on request.)
- Canadian National Institute for the Blind, 186 Beverly St., Toronto. (Stories, posters, leaflets, free.)
- Junior Red Cross Society, Customs Building, Calgary.
- Canadian Dental Hygiene Council, 86 Bloor St. West, Toronto.
(Leaflets, posters, free.)

Canadian Tuberculosis Association, Plaza Bldg., Ottawa.
(Leaflets, posters, free.)
For Teacher References, see Division II.

REFERENCES IN HEALTH EDUCATION

DIVISION II

PUPIL REFERENCES

- Charters, Smiley and Strang, *The Health and Growth Series*—Macmillan.
Living Healthfully.
Wise Health Choices.
Health Problems.
Burkard, Chambers and Maroney, *Health, Happiness and Success Series*—Ryerson.
Building for Health.
The Body and Health.
Turner and Collins, *Malden Health Series*—Heath.
Cleanliness and Health.
Health.
Lummis and Schawe, *Health Readers*—World Book Co.
Building My House of Health.
A Journey to Many Lands.
Winslow and Hahn, *The Habits of Healthy Living; The Game of Healthy Living; The Healthy Community*—Chas. E. Merrill Co.
Andress and Evans, *Success and Health; Healthy Citizenship*.
Andress and Goldberger, *Broadcasting Health*—Ginn and Co.
Wilson, *How You Work*—Gerald Howe, London.
Baruch and Reiss, *My Body and How It Works*—Harper.
Wheat and Fitzpatrick, *Everyday Problems in Health*—American Book Co.

REFERENCES IN HEALTH EDUCATION

TEACHER REFERENCES

- Downing, *Science in the Service of Health*—Longmans, Green and Co.
Bogert, *Nutrition and Physical Fitness*.
Rose, *Teaching Nutrition to Boys and Girls; The Foundations of Nutrition*—Macmillan.
Williams, *Healthful Living; Personal Hygiene Applied*—Macmillan.
Pieper and Beauchamp, *Everyday Problems in Science*—Gage and Co.
Kirkpatrick and Huettner, *Fundamentals of Health*—Ginn and Co.
Clendening, *The Human Body*—Garden City Pub. Co.
Williams-Ellis, *Men Who Found Out*—Gerald Howe, London.
St. John Ambulance Association, *First Aid to the Injured*.
Andress and Brown, *Science and the Way to Health*—Ginn and Co.

Physical Education

Physical Education is education through activities that are predominantly physical and its aims are identical with those of the entire school program, that is, to promote the growth and development of the whole child, mentally, emotionally, socially and physically. For this development education is not striving to bring every child to the same level, but is attempting to find what each child can do comfortably and well with his native ability and intelligence.

Physical Education serves *three* objectives:

1. Health Development:

- (a) Development of the muscular and organic systems to a high functioning level—an abundance of health, energy, vitality, endurance.
- (b) Development of co-ordinating skills for utility, safety, recreation, leisure-time enjoyment, adult activities.

2. Social Efficiency:

- (a) Development of proper social attitudes through adjustment to groups and situations; leadership, "followership," initiative, self-reliance, loyalty, friendly co-operation.
- (b) Development of proper standards of behavior—honesty, obedience, tolerance, fairness, good sportsmanship.

3. Culture:

- (a) Development of an appreciation of physical laws and human nature; provision for experiencing joy in the successful achievement of some interesting and constructive activity, and in making some contribution to the group.
- (b) Development of an appreciation of rhythm and music.

The Nature and Choice of Activities.

The nature of activities which may be promoted in any school will depend upon the facilities, the number of children and their needs and interests at various age levels.

The needs of the children will be determined by health examinations or inspections. If the teacher is at all in doubt as to the advisability of a child's participating in any part of the program, she should consult the parents regarding a medical examination for the child.

Much of the work in rhythmic, dramatic and imitative activities, especially in Division I, may centre in the work in enterprises. *Story plays*, which are types of imitative activity, are especially suitable for the integration of physical education with the enterprises.

In general, the teacher should keep in mind that activities chosen should include a variety of the big-muscle type; such as running, jumping, climbing, and combinations of the elements of hunting, chasing, fleeing, dodging and tagging.

Types of activities may be summarized as follows:

Division I.

Group games
Dramatic activities
Imitative activities
Rhythmic activities
Rhythms
Singing games.

Division II.

Group games
Team games
Relays
Self-testing stunts
Athletics
Rhythmic activities
Rhythms
Singing games
Folk dances

Organized Play Activities.

A wholesome and constructive programme of well-selected and organized play activities contributes definitely to the physical and social development of children. Children have a natural inclination to play, and their whole life is centred in play activities, which they enter spontaneously, as a means of expression of their physical and social interests. They derive great satisfaction and enjoyment in physical accomplishment, and in testing their strength and skill by experimenting with objects in their environment.

Rural children are seldom brought together in a social group except when they attend their local school. Their group is small; but it gives them the best opportunity they will ever have for social contact. The recess and noon periods are their own time, during which they may play, and carry on interesting group activities. These two opportunities—of having time for play, and of having children to play with—are important enough to warrant attention and effort on the part of the teacher.

Time: A part of the lunch and relaxation periods that are given to the children during each school day should be devoted to organized and guided play activities, during which every child is given an opportunity to participate.

Groups: For games and other activities, the children may be divided into at least two groups, the lower grades in one group and the upper grades in another. If either group is large, it may be subdivided into more groups. In a small school the children often play in one group and it is not necessary to separate them except for team games or athletics. The older boys and girls often enjoy playing simple group games and taking part in rhythmic activities with the smaller children. The smaller ones, however, are not interested in the more highly organized activities, and the upper grades will wish to participate in them without the younger children.

Pupil Leadership: The use of pupil leadership is an important part of the organization, and has a three-fold advantage. It will be of help to the teacher during the few times

when she cannot be on the playground during the play period; it will give the pupil-leader opportunities to contribute to the development of his own initiative and self-reliance, and give him the feeling that he is making a contribution in the group; and it will benefit the others in the group because with one of their own group as leader, there may be built up such qualities of good "followership" as loyalty, friendly co-operation and good sportmanship.

Equipment: Sufficient equipment may be secured through the interest and originality of the teacher at little or no cost. Many games, relays, rhythmic activities and athletic activities require no equipment. In fact, a very fine play programme may be conducted without equipment, although the programme will be more varied and interesting if a small amount is available. Older pupils might undertake to build some permanent playground equipment, such as swings and teeters. A few balls and a bat may be purchased at small cost. Bean bags, pitching targets, jumping pits, etc., can be made by the pupils.

Suggested Playground Activities.

The following activities are suggested for use with rural school children.

1. "Tag and It" Games.

A great variety and number of these games may be taught, as they are easily organized and easily learned. They cover a wide range of activity from the type with two or three children playing at a time to the Pom-Pom-Pullaway type where all are playing.

Brownies and Fairies	Three Deep
Flowers and Wind	Link Tag
Squirrels in Trees	Cross Tag
Cat and Rat	Japanese Tag
Skip Tag	Pom-Pom-Pullaway
Flying Dutchman	Ball in Ring
Two Deep	Fox and Geese
Stoop Tag	Catch of Fish
Duck on the Rock	

2. Relays.

The relay is the simplest form of team game. Interest in this type will begin to manifest itself about the end of Division I. Simple relays may be used with small children, the complexity increasing in the upper grades. As the complexity increases through the addition of such activities as jumping, goal throwing, catching, and many stunt elements, opportunity is offered for the development of many fundamental skills.

A relay must be started with a definite signal; but before that signal is given, special attention must be directed to definite starting and finishing lines and to an understanding of the exact procedure to be followed. Because of the nature of the relay, with the element of time and competition in-

volved, there is no opportunity to give suggestions between the time of the starting signal and the finish of the relay.

Bean Bag Passing	Stunt
Over and Under	All Up
Tag the Wall	Stride Ball
Shuttle	Run and Pass
Running	Farmer and Crow
Skiping and Hopping	Running and Bouncing
In and Out Obstacles	

3. Team Games.

Team games are the highest form of competitive play and are of interest to all of Division II. The spirit of co-operation and of group unity is expressed in the team games, where the individual members of the group work toward a common end.

Keep Away	Dodge Ball
Ante Over	Kick Ball
Club Snatch	End Ball
Prisoner's Base	Net Ball
Bound Ball	Volley Ball
Bat Ball	

4. Self-Testing Stunts.

Children of all ages are interested in stunts as a means of testing their own ability. Small children are interested particularly in the imitation of animals; while the interest of the older children tends toward the successful use of certain skills in attaining set goals. Stunts can be conducted in very small spaces, with little or no equipment, and are particularly fine for stimulating courage and self-confidence, and for building co-ordination and skills. Teachers should avoid the use of stunts that might involve serious strain, and should use such safety measures as will avoid accidents and possible injuries.

Duck Walk	Elephant Walk
Forward Roll	Leap Frog
Hand Stand	Jump and Reach
Rabbit Hop	Hand Wrestle
Hop Scotch	Cart Wheel
Follow the Leader	Rope Skipping

5. Individual Athletic Events.

Individual athletic events are those elements of athletic games which can be measured definitely as to time, distance, or number, and through which there may be competition between individuals, between groups, between an individual and achievement standards, or between an individual and his own previous record. Boys and girls in Division II are interested in this type of activity, and in keeping records of their own achievements.

Horse Shoe Pitching	Graded Ladder Jump
Target Pitch	Dashes
Distance Throws	Potato Race
Broad Jump	Balancing
Crouch, Jump Sideways	Pull Up
over Rope	Rope Climbing

6. Singing and Dramatic Games.

Singing and dramatic games are of great interest and value to children. They become especially satisfying when the children can express in rhythmical movement some of the nursery rhymes with which they are familiar. In singing games the action follows the story or song; and through this action the children learn rhythm, co-ordination and self-expression, in a delightful manner.

(For suggestions as to Singing Games, see Division I.)

7. Folk and Group Dancing.

The folk dance is a form of activity set to music in which the movements follow a definite pattern. This type of rhythm follows the less technical singing and dramatic type, and is suited to the older boys and girls of Division II. The compelling rhythm and vigorous action of the folk dance make it a very enjoyable type of activity.

(For suggestions as to Folk and Group Dances, see Division II.)

Suggested Indoor Activities.

On stormy days when the play periods are conducted in the building, it may be necessary to limit the type of activity or modify the rules of the games that are being played; but by careful planning the children will have space enough to engage in many interesting activities. A clear floor space of ample size for rhythmic activities, or for self-testing stunts, or for many games, may be secured by moving the teacher's desk. Relays and simple team games can be played in the aisles. The playing of games indoors, where care must be exercised to avoid accidents and injuries, will give a fine opportunity for the development of attitudes of courtesy, thoughtfulness of others and a respect for property rights. The children will also enjoy quiet games which may be played at the desks; such as checkers, dominoes, puzzles, etc.

In addition to rhythmic activities and stunts and many of the games already listed, the following games are examples of the many that are suitable for indoor play:

Changing Seats	Last One Out
Floor Tag	Aisle Pass Relay
Statues	Tag the Wall Relay
Puss in Circle	Blackboard Relay
Simon Says	Eraser Relay
Poison Seat	Bean Bag Passing Relay
Bird Catcher	Sideward Pass Relay
Ring Call Ball	Toss, Catch and Pass Relay
Bean Bag Circle Toss	

Posture.

The inculcation of habits relating to correct posture is one of the general objectives of the physical education programme. Since the body is a mechanism, the aim of good posture is to have this mechanism produce the most satisfactory results in operation and to minimize the unfavorable effects. "Skillful, well-co-ordinated movements are so performed as to

require the least possible expenditure of energy and to produce a minimum of friction in the parts involved. There are persons who never learn to perform even the simplest movements with mechanical advantage. It is not surprising, then, that that such complicated co-ordinations as standing, walking, and running are often executed awkwardly."

Good posture is difficult to define. This is because it involves mental and emotional values, and adaptations to many situations. Good posture is not a matter of physical training exercises but something which is a part of the child's entire reaction to his environment. It involves happiness, courage, confidence, as well as vigor of body. It is true that poorly adjusted seats, heavy work, tight clothing and faulty habits are causes of poor posture, but in the main, a child who has sufficient rest, is well nourished and free from physical defects, naturally assumes good posture.

The teacher contributes to the good posture of her pupils every minute of the day: in making them happy, imparting confidence, giving a feeling of successful achievement, as well as by giving frequent changes of work, play periods, and freedom for movement in the classroom.

Certain exercises may be classed as posture exercises, but all exercises may contribute to posture. There are no better posture exercises than a vigorous game involving whole-body activity.

In developing good posture among children, the teacher's first principle is to see that the child knows how to maintain good posture. Experts define correct posture as the position in which the long axis of the body, including the neck and head, is in a vertical line. Sometimes it is defined as the body held so that it is made as tall as possible. The second principle is concerned with developing interest in maintaining good body mechanics, and the third principle is that posture is related definitely to freedom from remediable physical defects, adequate nutrition and sufficient exercise and rest.

There are three common types of faulty posture:

1. Round-shoulder, hollow-back posture, sometimes called fatigue, or slouch posture.
2. The head-forward posture. This is frequently due to work which requires sitting or standing with the head bent forward for long periods.
3. The low-shoulder posture. An unequal position of the shoulders is usually due to a lateral curvature of the spine.

DIVISION I

In Division I, the greater part of the time devoted to Physical Education should be given to free play, story plays, games, and rhythmic activities, such as rhythms and singing games. A limited amount of marching technique is of value for the orderly movement of pupils from one place to another. Without the rigidity of the soldier type of drill, marching may be utilized to accomplish desirable motor training. March-

ing tactics have little disciplinary value except to develop the ability to respond *en masse* to command. Such values should be claimed only where specific responses have a meaning in the school and social life of the community; for example, in fire drill and parades.

Story Plays.

Teachers are urged to exercise initiative in adapting story plays to local situations and to the work of enterprises. They may be developed from reading lessons or language material. Absolute uniformity of action is undesirable. A few examples of this type of imitative activity are given here, which have been taken with but little modification from the Minnesota Programme.

Getting Ready for School.

1. Washing face, neck and ears (trunk, arms and neck).
2. Bend down to wet cloth and rub on soap (as if basin were on seat). Stretch neck from side to side and forward and backward, rubbing it clean.
3. Stretching up to get towel (arms and legs). Reach up with right hand, on tiptoe, then with left.
4. Combing hair (arms and neck).
5. Brushing shoes (trunk, legs and arms). Raise right foot to seat, bend down and brush shoe. Repeat with left.
6. Skipping away to school, waving good-bye (arms and legs).

In the Barn.

1. Smelling hay. (Breathing exercises.)
2. Racing to barn. One row at a time around room and back to place.
3. Climb ladder to hay loft. (Alternate raising of hands and knees.)
4. Jumping in the hay. (Stand on seats and jump to floor.) Encourage landing on toes, reminding that feet make no sound in the hay.
5. Playing in wheat bin. (Bend forward to get scoopful and then stretch high and pour it back.)
6. Jumping over barrels. (Vaulting seats.)
7. Out of breath. (Breathing exercises.)

Playing Indian.

1. Walk like Indian warrior. (Alternate rows face the back of the room. Ready—Go! Two rows march around one row of seats, stepping very high, with arms folded on chest, and head erect.)
2. Paddling a canoe. (Get into canoe. Pupils face the back of the room. Then they sit on desks and place toes under edge of seat. Raise arms at right side, left arm high as if grasping canoe paddle—ONE! Arms pulled back—TWO! Arms forward. Keep it up—STOP! This should be repeated on the left side.)
3. Indian war-dance.

Mother Prepares Good Food to Make Us Grow Strong and Tall.

1. Showing how tall we are. (Stand straight and tall—stretching head, neck, chest and trunk.)
2. Showing how high we can reach. (Stretch right arm above head. Stretch left arm above head. Stretch both arms above head. Stand on tiptoe and stretch arms.)
3. Bending stunt. (Bend down, reaching toward floor with finger tips, with feet apart and knees straight.)
4. Showing reach of arms. (Raise arms sideways and stretch.)
5. Show how high we can jump and reach (legs).
6. Showing how we can balance. (Raise arms sideways and move right, left, leg backward.)

Christmas Toys.

1. Walking doll. (Walk once around room keeping knees stiff and swing arms forward, upward alternately.)
2. Play with ball. (Toss ball up with one hand and catch with both hands. Clap hands together in catching ball. Alternate hands in tossing up ball.)
3. Toy engine. (Bend arms half way up and clinch hands and raise left knee: step forward with left foot and thrust right arm forward and downward with circulatory movement, at same time raising right knee; repeat above action, right, left, right, etc., to sound of choo! choo! toot! toot! ding-dong! ding-dong!)
4. Train of cars. (Have a row of children take movements under 3, except that one hand must rest on the shoulder of child in front. The leader is the engine and uses both hands. This play is especially good to teach the need of keeping in step.)
5. Blowing whistle. (Take in deep breaths; then blow out forcibly.)

Making Garden: (Tune: Mulberry Bush).

1. This is the way we spade the ground. (Arms, trunk and legs.)
2. This is the way we take the ground. (Arms, trunk and legs.)
3. This is the way we plant the seeds. (Arms, trunk and legs.)
4. This is the way the rain comes down. (Arms and trunk.)
5. This is the way we hoe the weeds. (Arms and trunk.)
6. This is the way we smell the flowers. (Breathing.)

Rhythms. (See also the outline in Music.)

If a piano or a victrola is available, simple exercises may be done to music. The following suggestions may prove helpful.

1. Give practice in simple rhythms, preparatory to the lesson.
2. Have class listen to the music for rhythmical changes of time, tempo, intensity or accent.

3. Develop the fundamental rhythm in the various rhythmical patterns.
4. Practice each rhythm in the various rhythmical patterns.
5. Encourage freedom of interpretation by the pupils.

Rhythmic patterns may be selected from the following

movements:

Walking	Leaping	Bears
Marching	Horses	Flying Kites
Running	Ducks	Blowing Feathers
Skipping	Elephants	Playing with Shadows
Hopping	Peacocks	Swings
Sliding	Birds	See-saw
Galloping	Frogs	

Singing Games.

Singing games are games set to music where the children sing as they play. Tone quality should not be sacrificed for greater activity. A few games are suggested here.

Here We Go Looby Loo	The Circus
A-Hunting We Will Go	Round and Round the Village
The Jolly Miller	How Do You Do, My Partner?
The Muffin Man	Did You Ever See a Lassie?
Hey Diddle Diddle	The Farmer in the Dell
Hot Cross Buns	Here Come Three Dukes
London Bridge	A-Riding
Oats, Beans and Barley	Here We Go Round the Mul-
I See You	berry Bush
	Here We Come Gathering Nuts
	in May

Games.

Free play and group games which involve such fundamental movements as running, jumping, hopping, skipping, dodging, throwing, catching, fleeing, and climbing. Such games are the following:

Squat Tag	Hungry Birds
Do This, Do That	The Cat and the Mice
Garden Scamp	Soldiers and Brigands
Circle Squat	Big A, Little A
Frog in the Middle	Over the Head Relay
Skipping Tag	Magic Ring
Call Ball	
Mother Hubbard	

A child at the end of Division I should know the rules and be able to play skillfully at least *six* games.

For further suggestions and outlines for a variety of activities the teacher is referred to the *Lessons* given in the *Syllabus of Physical Training for Schools, 1933 Edition*.

DIVISION II.

The work in Division II is a carrying on of the same type of free activity, games and rhythmic activities as in Division I. Greater emphasis is placed on leadership and team spirit,

with more attention to skill, speed and accuracy. More emphasis is also given to self-testing activities and individual athletics. Relays are more complicated and team games are introduced. In rhythmic activities the teacher may devote some time to folk and group dances as well as to singing games and rhythms.

Games: (Relay or Team).

Run and Throw Relay	Wheel Barrow Race
Chariot Relay	Tying the Sash
Dodge Ball	Run the Gauntlet
End Ball	Circle Chase
Throw and Catch Relay	Chinese Wall
Hoop Relay	Two Dogs and a Bone
Shuttle Relay	Exchange Relay
Pom-Pom-Pullaway	In and Out Files
Duck on the Rock	Crusts and Crumbs
Overhead Relay	Circle Gap Passing

Individual Athletic Events.

- Dash—50 yards, boys.
- Dash—40 yards, girls.
- Baseball distance throw—(Boys and girls).
- Running broad jump—(Boys).
- Standing broad jump—(Girls).

Stunts or Self-Testing Activities.

Knuckle Down: Place the toes against a line chalked on the floor, kneel down and get up again without using the hands or moving the feet from the line.

Single Squat: Stand on one foot with the other stretched out in front. Sit down on your heel without losing your balance or touching the ground in any way except with the foot you started on. Use your arms for balance and come back to a standing position, but still on one foot.

Heel Knock: Spring upward with both feet, knock the heels together twice, and separate them before landing.

Knee Dip: Stand on the right foot, reach behind you and grasp the left foot with the right hand. Go down and touch the left knee to the floor and rise again. Do the stunt on each foot.

Elephant Walk: Place hands on the floor, width of shoulders apart, weight on hands. Walk forward keeping legs straight and as close to the hands as possible.

Coffee Grinder: Place the right hand on the ground with the arms stiff. Extend the body with head well back. Walk around in a circle using the right arm as a pivot. Repeat to the left.

Fish Hawk Dive: Kneel on one knee holding the other leg off the ground. Bend forward without using the hands and pick up a handkerchief placed on the ground directly in front of the knee which is supporting the body.

Through the Stick: A wand, broom handle, or similar round stick may be used for this activity. Hold the stick over the head, palms forward, and about two feet apart. Bring

the stick down over the body, step through and slide it along the back to the original position without losing the hold. Reverse this operation to the first position.

Other self-testing activities are the following:

Dwarf Walk	Rolling between obstacles
Cricket Walk	Aiming at wall target
Forward Roll	Aiming through a hoop, or at
Cart Wheel	a suspended football
Spinning Top	Jump the Stick.
Paddle Wheel	Caterpillar Crawl

Rhythmic Activities.

In addition to those outlined for Division I, the following folk and group dances are suggested:

Children's Polka	The Ace of Diamonds
Old Dan Tucker	Captain Jinks
Pop Goes the Weasel	Hornpipe
Come Let Us Be Joyful	Maypole Dance
Highland Schottische	Sellinger's Round
Ruffy Tufty	Rheinlander
Virginia Reel	Irish Washerwoman
Irish Lilt	Old Rustic Dance
Norwegian Mountain March	Highland Fling
Shoemaker's Dance	Oranges and Lemons

The above activities are only suggestive. The teacher is referred for a greater variety and for suggestions as to methods of play, etc., to the work outlined in the *Syllabus of Physical Training for Schools, 1933 Edition*. Activities may be selected from Tables 7 to 30.

REFERENCES

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- Crawford, *Dramatic Games and Dances for Little Children*—Barnes.
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Art

INTRODUCTION

GENERAL STATEMENT RESPECTING THE PURPOSE OF THE COURSE

“The fundamental objective of the curriculum in Art for the elementary school should be ‘everyday art for everyday people’—an aim providing the child with knowledge and skills that will be of value to him as a citizen and as a home-maker”. While the child should be taught to see and appreciate beauty in the recognized fields of painting, sculpture and architecture, his instruction must also provide a training which leads to a demand for beauty in all of the objects he uses from day to day. To give a training that provides practical knowledge, and develops love for and appreciation of the beautiful in nature and in the products of industry, is the function of the art course in the elementary school. “The chief aim of education in this sense is to train the coming generation in the consciousness and understanding of beauty, and of the use and value of beauty in the home and community life and in the great realm of industry. This *fundamental beauty* is the basis of the Course of Study in Art.*

The art teacher must plan for experiences which will interpret this quality to the child, experiences suited to his stage of development, and so graded that they appeal continuously to his maturing intellectual and emotional capacities. He must be led to recognize that “art is for use”.

Modern educational practice places increasing emphasis upon outcomes which are social—which meet the needs of average pupils. The child learns through his own activity, and courses must be planned to meet this requirement. The materials of the art curriculum may be grouped under three heads:

- (1) *The Knowledge Factor*, which requires the development of taste and discrimination in matters of dress, personal appearance and home decoration. The child is armed with knowledge which enables him to make wise choices and to recognize “fitness to purpose”.
- (2) *The Appreciation Factor*, which provides an understanding of the principles of art structure, enabling

**The Classroom Teacher*; Whitford and Todd- -The Classroom Teacher Inc., Chicago.

the child to enjoy the expression of beauty in nature and in art.

- (3) *The Creative Factor*, which requires that the child attempt himself to produce beauty in some form. Mere observing of the beautiful does not lead to full appreciation. The child must sense the difficulty inherent in the production of things of beauty. It is of prime importance, therefore, that children be encouraged, from the primary grades on, to create freely. "Such experience enriches and expands the knowing and enjoying aspects of art".

All the above factors should be given due emphasis in a well-balanced curriculum. Such a three-fold approach to the art experiences of the pupil, providing for the knowing, the appreciating and the doing of art will make possible the functioning of this subject in the classroom and life needs of the pupil. (For further discussions see *Art for Everyday Life*, by W. G. Whitford; W. J. Gage & Co.)

No other subject in the curriculum lends itself more readily to the correlating and integrating of subject-matter called for by an activity programme. The course in Social Studies and Literature is enriched and vitalized by correlation with Art, which also lends colour and interest to other subjects. The "enterprise plan" of organization may unite into one whole the Art, Literature and Social Studies, through carefully planned and organized pupil activities which result in economical and effective learning. But a challenging and inspiring presentation of this subject is necessary if it is to function as a blending and unifying medium.

One further consideration of importance must be kept in mind. Care should be taken to see that Art preserves its identity—its rightful place in the curriculum. It should not become the mere tool or handmaid of other subjects, since it has its own distinct and important contribution to make. This is weakened by too great a degree of subservience to other subjects.

The major fields of art generally recognized as basic for curriculum development are the following:

1. Drawing and painting.
2. Modelling.
3. Design—
 - (a) General;
 - (b) In the industrial arts, including the home and costume.
4. Colour.
5. Construction.
6. Appreciation of beauty, in nature and in art.

In each division of the school the aim of the art course is to provide typical experiences through well-chosen activities relating to these fields of art-expression.

THE ART COURSE

DIVISION I

In this division, emphasis is placed on the creative factor, while appreciation and knowledge receive more attention in the later grades. The power to appreciate is developed when the child, encouraged to create for himself, realizes the difficulty of producing fine things.

The art experiences offering the greatest possibilities for creative expression are (1) drawing and painting; (2) colour; (3) design; and (4) construction.

1. Drawing and Painting.

Of the foregoing, *drawing*—the graphic experience—should receive emphasis in the primary grades, since the chief aim of art instruction should be the development of a graphic vocabulary supplementing the development of a reading or speaking vocabulary in language work.

It is essential that in the acquisition of this graphic vocabulary the forms learned should be suitable for the particular grade level, that growth in ability to represent detail should be continuous, and that increasing facility in the use of the forms learned should result in fluency of graphic expression. This fluency of expression is acquired to a considerable extent by allowing in all grades for free creative expression, in which the forms learned are used in the illustration of stories read or heard or purely imaginative. The child gains skill in the use of a language which expresses graphically his own ideas regarding the world about him. "There are two kinds of drawing, 'representative' and 'creative'. The former is most important in the integrated programme, where facts relating to other subjects—literature, history, etc.—must be satisfied, but purely creative expression, where the child is freed from representing anything imposed from without, and expresses his own ideas in a personal manner, should have a definite place on the art programme".*

As the child acquires this graphic vocabulary, his powers of observation are developed, his appreciation of form and shape grows, his ability to visualize and form mental images is increased, and his skill in the handling of media is strengthened.

Both free expression and directed drawing are advised in the primary grades, the simple forms children learn to draw being used when they wish to make original drawings. The forms chosen for special lessons—directed drawing—should be those of which they have most need in expression.

*Harold Rugg in *Culture and Education in America*, quoted in *Fine Arts*, by Sally B. Tannahill; Bureau of Publications, Teachers College, Columbia University.

The media best suited for drawing and painting are crayons (Prang's "Crayograph" is recommended), coloured chalks, calcimine paint mixed with a little mucilage and water, powdered tempera. Children in these grades need to use wide arm movements rather than mere finger movements when drawing; hence sheets not smaller than 9"×12" are necessary. Newsprint or building paper is suggested. As a variation from work at the desks, larger sheets of paper may be fastened with clips or gummed paper to pieces of cardboard placed in the chalk-rail. This permits freer and more forceful work to be carried on.

2. Colour.

Since the work in colour is so closely interwoven with all other forms of art expression, it is difficult to isolate it for special study. However, it is to be expected that pupils in these grades, through working with colours, will learn to recognize the six spectrum colours, a tint and a shade of each, warm and cool colours, colours typical of the seasons, colours that look well together, simple colour groupings, and good colour in well chosen pictures. There should be discussion of colour in costume, especially in connection with the dressing of dolls; the matching of colours in nature and objects; the planning of colours for a doll-house or playroom.

The main underlying purpose is to make the study of colour as practical in its application as possible, in order that it may carry over and form a good foundation for the tasteful use of colour in later grades.

3. Design.

The chief aim under design is to introduce children to the idea of decorative arrangement and order through simple pattern making. This work should be closely related to the work in construction. The design should be the outgrowth of a desire to make the constructed object more pleasing to the eye, and to make it satisfy, permanently, the purpose for which it is intended.

The media recommended are crayons, cut paper, torn paper and stick or potato prints.

4. Construction.

Problems in construction may be the outgrowth of needs arising from the enterprises carried on by different groups. The work may be done by the individual or by the group, as the occasion demands. This should not be interpreted as eliminating interesting construction problems associated with special days, or with any other activities which satisfy the individual interests of the children.

The aim, under construction, is to give experience in three-dimensional work. "Through this experience the child is introduced to the realm of the handicrafts and the industrial arts". Work of this kind offers opportunities for creative

expression. The child acquires skill in the handling of materials, sees the necessity of careful planning and accurate measurement, and learns that thoughtful work and careful planning are essential to the turning out of well-designed products.

Cardboard, thin wood, paper, clay, and plasticine are suggested media. Modelling provides further opportunity for three-dimensional experience, and will be found useful in connection with the enterprise work. Here emphasis is placed upon form rather than upon line and colour.

Some work in appreciation also is possible in these grades. While picture study is the chief topic considered here, experiences in appreciation should not be limited to the study of pictures, but should include observation of the beautiful in nature and in man-made objects. The beauties of a sunset, the forms and plumage of birds, flowers, trees, etc., should be noted. Likewise, opportunities for exercising choice between the beautiful and the commonplace in man-made objects should be afforded.

The advantage of picture study lies in the fact that a wide range of fine prints is easily procurable. These *must* be in colour since the colour appeal is as strong to young children as the subject appeal. The aim in this work, in Division I, is to interest children in pictures. The study should be informal and may be linked effectively with the work in oral expression.

The teacher's collection of coloured pictures, as of other illustrative material, should be a large one. From time to time, pictures relating to an enterprise, or to the interests of the moment, should be hung up for observation.

"Art appreciation may include an appreciation of anything beautiful in nature, and in the fine and industrial arts. If appreciation is the ability to recognize and enjoy beauty of line, form, and colour, then it is worth-while to teach the children certain principles which will aid them in discerning and appreciating art in all its forms". Art appreciation is of slow growth. A knowledge of art quality, acquired gradually through the years of school, will add to the enjoyment of living.

GRADE I

N.B.—The teacher is advised to read carefully the General Statement at the beginning of this course.

1. Drawing and Painting.

The development of a graphic vocabulary, in this and succeeding grades, requires the representation of large simple objects. Only the simplest forms are to be used, with no detail. Things to draw will be those which the child knows and meets with in his everyday environment, as well as those which are suggested by the enterprise work. Both directed work and free expression are to be provided.

In free periods the teacher should act as a guide to inspire children to create, in order that something may be achieved. "Every child has the power to create in some degree". Patience and understanding are necessary attributes of the teacher. "That teacher will help most who has become as a little child—who is wise enough to stay watchfully in the background and to rejoice in free, sincere child expression". Helpful, encouraging criticism is of great assistance to children in this work as well as seeing and discussing the work of other children. (For further discussion, see *Fine Arts*, by Sally B. Tannahill.)

In the directed work teachers should draw much for the children. Simple forms may be dictated, step by step, children observing and drawing after the teacher. All forms taught should be re-drawn many times, interesting motivation for repetition being provided, until pupils can draw these from memory. The forms learned can be used in original pictures.

The paper used should not be smaller than 9"×12". Crayons are recommended as the simplest medium for beginners to use. Later in the year larger sheets of newsprint, bogus paper or brown wrapping paper may be attached to improvised easels, on which children are allowed to draw. Cheap calcimine paint and large brushes may be used.

Things to draw: Animals, people, buildings, simple conveyances, toys, flowers, indoor and outdoor pictures.

The illustration of stories heard or read, as, "Our Nursery Rhyme Friends"; subjects connected with home and school; vivid experiences in the daily lives of children provide pleasurable themes for expression.

2. Colour.

The work in colour is closely allied with the other work of the grade. Children should learn in this grade—

- (1) To recognize the six standard colours; to match these accurately. A simple colour chart showing the six standard colours is a necessary item in the teacher's equipment for colour recognition and colour matching.
- (2) To observe and to appreciate the colours of nature at all seasons. Teachers should secure many good pictures illustrating colours in nature—flowers, trees, birds, the seasons—autumn, winter, summer.
- (3) To distinguish between warm and cool colours (colours of sunlight, colours of shadows).
- (4) To observe colour in pictures.

3. Design and Arrangement.

Recognition of the value of order in arrangement; repetition of units for a border or a surface pattern.

The principles of repetition and alternation, if thoroughly understood by the teacher, can be explained to children in a simple way in working out design patterns:—one shape, one colour; two shapes, two colours.

The exercises in design may be prompted by the enterprise work, special day observance, or any other work of the grade.

Stick or potato prints, cut paper, simple stencils using crayons are suitable media to use for the decoration of simple booklets, boxes, greeting or invitation cards, place cards, Christmas wrappings, toys, doll clothes and playhouse furnishings; some of which would be suggested by such enterprises, as, "The Birthday Party", "Our Christmas Concert", "A Hallowe'en Party", "We Play House".

Motifs for design may be suggested by things the children like to draw—animals, flowers, trees, fruits, vegetables, people. Therefore drawing lessons should precede lessons in design. Torn and cut paper illustrations of stories make interesting themes for simple decorative composition.

Exercises in *printing* are afforded through the preparation of invitations, greeting cards, place cards, signs and labels, for such enterprises as "We Go Shopping" or "How Our Houses Are Made"; and through the making of booklets, etc. The printing should be of simple words in straight-line letters. For larger signs, letters may be cut from paper.

4. Construction.

In this grade a one-room playhouse or store, large enough for the child to move around in freely, is recommended. The experience with large-size construction should be given, as pupils should have experience with this type as well as with the construction of smaller objects. This type of work might fit in with such enterprises as "We Go Shopping", or "How Our Houses Are Made". Large-size heavy cardboard, packing boxes, orange crates, butter boxes, etc., may be used.

A farm set-up in connection with such an enterprise as "We Visit the Farm" would call for the construction of smaller objects, mostly based on the box shape.

In connection with construction, modelling supplies an excellent complementary activity; for example, the modelling of animals for the farm and simple objects for the playhouse or store.

PICTURES THAT GRADE I CHILDREN MAY ENJOY

The First Step; Millet.

Touching; Jessie Wilcox Smith.

Smelling; Jessie Wilcox Smith.

In the Country; Blommers.

Goldilocks and the Three Bears; Jessie Wilcox Smith.

Four Little Scamps Are We; Adam.

Children of the Sea; Israels.

Note.—It is not to be expected that all of the work outlined above will be covered in any one year. Nevertheless, the teacher should arrange that each year the pupils have a little experience at least in each of the main fields of art expression; that is, in drawing, design, colour, construction, and apprecia-

tion. In this way provision will be made for continuity of growth throughout the elementary-school period in each of the major fields of art.

GRADE II

N.B.—The teacher is advised to read carefully the General Statement at the beginning of this course.

1. Drawing and Painting.

See the outline for Grade I under this heading.

The development of a graphic vocabulary is continued. Children here show a desire for greater skill, and wish to show more detail in their drawings of the forms used in free expression and representation. As in the first grade, much encouragement and helpful criticism from the teacher is necessary in order that children may express originality in their work.

Directed work is advised here, similar to that in Grade I, as an aid to better results in creative effort. Simple methods for drawing various objects should be shown, step by step, as in Grade I, children observing and drawing with the teacher. Many interesting opportunities for re-drawing forms dictated should be given, as in the illustration of themes involving forms taught, until pupils can draw these forms from memory. They may then be used freely in original pictures. Children are quick to recognize that the forms they have learned to draw can be used in a great many ways. Thus they gain greater confidence and a keener interest in the work.

The paper used should not be smaller than 9"×12". Opportunity to draw on larger sheets fastened to large cardboard, resting on the chalk-rail, should be given. Wrapping paper will serve well here. Where possible powder paint or calcimine may be used to supplement the crayons.

Things to Draw.

People, animals, buildings, conveyances, etc., and other objects that might be needed in such an enterprise as "The Circus", or "We Visit the Farm"; simple buildings, objects and characters needed for the enterprise, "Our Story Book Friends"; indoor and outdoor pictures, flowers, fruits and vegetables.

Special day and seasonal topics provide profitable and interesting variation in the work.

The illustration of fairy tales and poems from literature offer pleasurable themes for pictorial composition. In this work the following simple methods of arrangement will be considered:

- (a) Things farther away are higher and smaller (if on the ground); also dimmer in colour.
- (b) Objects either cross the skyline or are put within the ground space.

- (c) One object in the picture will be made large to give the picture emphasis.

2. Colour.

The work in colour is closely allied with the other work of the grades.

As in Grade I, an interesting colour chart is a necessary item in the teacher's equipment. This should show the six standard colours, and one tint and one shade of each hue.

The work of Grade I is continued. In addition the pupils should—

- (a) Recognize two values (tint and shade) of each colour (applied in pictorial composition).
- (b) Learn to use simple combinations, as one bright colour and a neutral (black, white or gray), and such combinations as used at different seasons in flowers: red and green at Christmas in holly; violet and yellow at Easter in pansies, iris, etc. This work should be closely allied with the work in design.
- (c) Distinguish between bright and dull colours.
- (d) Observe colours in nature and in pictures. The teacher is advised to have many good pictures showing colours in nature at different seasons of the year.

3. Design and Arrangement.

See Grade I under this heading.

As in the preceding grade, many motifs for design will be suggested by things the children have learned to draw, animals, flowers, fruits, trees, characters from stories, etc. Hence the work in design will follow the work in drawing.

Recognition of the value of order in arrangement; repetition of units for a border or a surface pattern. The principles of repetition and alternation are explained in a simple way, as in the preceding grade. (In surface patterns, straight and full-drop repeats.) Many designs may be planned for the decoration of boxes, trays, greeting cards which children make, although many exercises in design will be undertaken for the training afforded in developing the idea of spacing and arranging. Sufficient guidance and encouragement is required to help children express originality in this work. Stick or potato prints, simple stencils using crayons, cut paper are the media recommended.

Elementary work in decorative composition through the illustration of stories in cut paper or torn paper. This exercise affords experience in arrangement and in the use of colour (three values, light, middle and dark—light value for sky, middle value for ground, dark for objects).

The work in design may be closely related to the enterprises, special day observance, or to any other work of the grade. Book-cover designs, greeting cards, calendars, invitation cards, boxes, trays, simple posters, wrapping papers, etc., are suggestions arising out of such enterprises as "Our Christ-

mas Concert", "The Hallowe'en Party", "St. Valentine's Box", "The Circus Parade", etc.

Lettering: simple straight-line alphabet; drill in the spacing of letters in a word. Simple block letters may be cut from paper. Many needs for printing will arise from the enterprise—printing of labels, signs, posters, etc. Design, drawing and colour are closely related.

In the cutting and mounting of pictures it is important that children learn early to cut out carefully and to mount neatly and tastefully, especially in connection with the making of a scrap-book. Colour and size of mounting paper are important.

4. Construction.

The construction of simple buildings, conveyances, and the making of cardboard figures and animals will form the greater part of the construction activities involved in the carrying out of such an enterprise as "The Circus", or "Our Story Book Friends". There should be an effort made to have children work neatly, to avoid waste of materials, and to strive for good proportions in all construction work. Experience with large-size construction, as in Grade I, may be had from the store or house project.

Pupils should acquire skill in using the ruler to the extent of the inch and half-inch.

Modelling supplies an excellent complementary activity to the work in construction. Animals and simple objects may be modelled from plasticine or clay.

PICTURES THAT GRADE II CHILDREN MAY ENJOY

The Holiday; Potthest.

Bringing Home the New Born Calf; Millet.

With Grandma; MacEwen.

Madonna Del Granduca.

Return to the Farm; Troyon.

The Artist's Daughter; Kaulbach.

Little Red Riding Hood.

Note.—It is not to be expected that all of the work outlined above will be covered in any one year. Nevertheless, the teacher should arrange that each year the pupils have a little experience at least in each of the main fields of art expression; that is, in drawing, design, colour, construction, and appreciation. In this way provision will be made for continuity of growth throughout the elementary-school period in each of the major fields of art.

GRADE III

N.B.—The teacher is advised to read carefully the General Statement at the beginning of this course.

1. Drawing and Painting.

See outlines for Grades I and II under this heading.

As in previous years, the aim of the work in drawing is to increase the graphic vocabulary of the child and thus en-

courage his creative powers through providing him with the necessary means of expression.

Children in this grade should be able to express more accuracy in shape and proportion, and more detail in the things they draw. Provision should be made for directed work and free expression. New forms should be taught, step by step; the pupils "swinging in" the important lines first, then adding the details. Forms taught should be re-drawn many times, each re-drawing being prompted by an interesting motivation so that the repetition may not become monotonous. When children can "swing in" the form freely from memory, it may be used in the illustration of stories and in the drawing of original pictures. Children should be encouraged to "draw large and fill the space", and to make their drawings with "a real swing". Hence sheets not smaller than 9"×12" should be used. Frequently pupils should be allowed to draw on larger sheets attached to a drawing-board or to a large cardboard sheet (easel drawing). Newsprint, bogus paper, brown wrapping paper may be used; with the same media as in previous grades.

Things to draw will be suggested by the enterprise being worked out, by special day observance, by vivid experiences in daily lives of children. "We Visit Japan", "A Trip to Holland", "Long Ago with the Indians", "The Harvest Festival", "We Go Travelling"—will suggest:—children, typical conveyances, types of shelter, characteristic objects—kites, lanterns, parasols, flowers, fruit, vegetables, trees, etc., these being used in simple illustrations.

Figure drawing should show more accuracy in shape and proportion than in previous grades. The drawing of children of other lands will offer interesting opportunities for the study of costume; so also "We Prepare for Winter", "Story Book Friends". This will link closely with the work in design and colour.

In pictorial composition such elements as trees, roads or streams, buildings, etc., should be rendered with more attention to good arrangement: with some attention to the centre of interest (emphasis), to the effect of distance and to the positions of the various elements included in the composition; these to be chosen from the enterprise, from literature, from special day activities, from everyday occurrences.

2. Colour.

The work in colour should be informal. Children should acquire colour sense through the tasteful use of colour and through observance of the artistic use of colour by others. The teacher will act as an enthusiastic guide in this work.

The work begun in Grades I and II should be continued. All work should be closely related to the work in drawing and design.

A necessary item of the teacher's equipment is an interesting colour chart, showing the six standard colours, and a

tint and a shade of each hue. This may also include a simple value scale of white, gray and black.

Elementary work in the using of colour combinations (colour opposites): one bright colour with black and white or with black and gray; bright colours (red-yellow-blue triad) in gaily coloured posters. These combinations can be applied effectively in cut paper in making simple decorative compositions.

Warm and cool colours—where used; colours in nature (flowers, sunset); colours in famous pictures.

Ample illustrative material is necessary in this work: winter and autumn pictures; landscapes; water pictures; night scenes; gaily coloured posters; coloured pictures of costumes, etc.

3. Design and Arrangement.

The work in design should be closely related to the work in drawing and colour.

The spacing and arranging of simple forms, in the making of border and surface patterns, is to be continued. By the time pupils leave Grade III they should have developed a fair understanding and appreciation of good spacing and grouping, through the observance and application of the following elementary principles of arrangement:

- (a) Repetition, where shapes and colours follow in regular order.
- (b) Alternation, where shapes and colours alternate to lend variety.
- (c) Emphasis, where one shape or colour is made more important in the pattern.

It is not intended that there be any formal discussion of these principles, but careful guidance on the part of the teacher will result in the development of interesting patterns illustrating them; these to be worked out for the decoration of boxes, trays, book covers, envelopes, cards, costumes, etc., or other things made by the children in connection with the enterprise or special day problems.

Crayons, simple stencils using crayons, stick or potato prints, and cut paper, are suggested media.

Motifs for Design.

These will be developed out of the things the children have learned to draw: pine tree, teepee, canoe, Dutch mill, Japanese lanterns, simple conveyances, etc; hence design work should follow and grow out of the work in drawing; originality is to be encouraged.

The illustration of themes from literature, or other work of the grade, worked out in cut or torn paper, will provide subjects for simple decorative composition; good arrangement being important here. The principle of emphasis will give prominence to the centre of interest. This work should be closely allied to the work in colour. Use simple colour

schemes; use three values; e.g., sky—light; ground—middle; figures or objects.

Skill in lettering freely should be an aim; spacing words in a line. A simple poster alphabet should be added to the line alphabet previously taught.

In the cutting and mounting of pictures, children should be trained to cut carefully, and to mount neatly and tastefully. The colour and size of mounting paper are important.

Pupils should be able to measure in inches, half inches, and quarter inches.

4. Construction.

This work will for the most part be dictated by the needs arising out of the enterprises. Simple conveyances and types of shelter will require some knowledge of geometric objects; such as the rectangular solids, cylinder, cone and hemisphere. Typical buildings are based on these shapes; e.g., the wigwam, igloo, log cabin, Dutch mill, native hut. Conveyances—the train, airship, bus, automobile, boat, etc.

Careful planning, accurate measurement, neat workmanship, economical use of materials, and observance of good proportion are desired habits that children should acquire through carefully directed work in construction.

Modelling should go hand in hand with construction. This may work in with such enterprises as "Long Ago with the Indians", "We Visit Japan"; e.g., modelling of Indian pottery, Japanese vases, etc., which may be coloured and suitably decorated. Illustrative material is an aid here.

PICTURES THAT GRADE III CHILDREN MAY ENJOY

The Arrival of the Shepherds; Le Rolle.

Fairy Tales; Shannon.

Carnation Lily, Lily Rose; Sargent.

Playtime in Holland; Hitchcock.

Shoeing the Bay Mare; Landseer.

Flower Girl in Holland; Hitchcock.

Chums; Jones.

Note.—It is not to be expected that all of the work outlined above will be covered in any one year. Nevertheless, the teacher should arrange that each year the pupils have a little experience at least in each of the main fields of art expression; that is, in drawing, design, colour and appreciation. In this way provision will be made for continuity of growth throughout the elementary-school period in each of the major fields of art.

MINIMUM ATTAINMENTS FOR DIVISION I

1. The ability to draw with free-swinging lines and with a minimum of detail a number of simple objects listed in the course.
2. The ability to use freely in narrative illustration or in original composition any of the forms which have been learned.

3. The ability to make a pleasing arrangement of the elements in a simple pictorial composition, with attention to the centre of interest.
4. The ability to recognize and to use the six spectrum colours, a tint and a shade of each, and simple colour groups; to distinguish between warm and cool colours, and bright and dull colours; and to observe and appreciate colours in nature and in good pictures.
5. The ability to space and to arrange simple shapes for decorative purposes.
6. The ability to measure accurately with the inch, half-inch, and quarter-inch; to cut to line; and to construct neatly the simple forms needed in the enterprise work.
7. Some ability to see and to enjoy beauty in nature, in pictures, and in things of everyday life, including the child's own handwork and that of other pupils.

DIVISION II

GENERAL STATEMENT

Teachers are advised to read the General Statement at the beginning of the course. In this division, children become increasingly aware of deficiencies in their representations of objects. The powers of perception are developing rapidly, so that the crude drawings, which in previous grades children found sufficient as symbols of the objects they represented, no longer satisfy. Drawings now must look "right" to satisfy the more critical faculty steadily developing. To meet this desire for higher standards of attainment a sufficient number of periods of directed teaching must be provided. These will prevent the child from losing interest because of a realization of the inadequacy of his drawings. Power of accurate representation must increase with power of observation. Children at this stage are capable of more sustained effort to reach their objectives, and can appreciate more fully the need of persistence. The function of the school is to encourage children to experiment freely, to train them to manipulate with skill the various media and materials used, and to have them appreciate the value of working steadily towards a definite goal.

In this division it is desirable that the free expression and spontaneity characterizing the work of primary grades be maintained, and that, in addition to directed work, ample opportunity to draw from memory and imagination be provided. The desire to know what to do in order to make the drawing "look right"—very prominent at this stage—offers the teacher ample opportunity to give the desired direction as the need arises.

The aims of the art work in this division are the following:—

- (a) To develop more technical skill in the use of art materials.
- (b) To develop better co-ordination of mind, hand and eye.
- (c) To increase the powers of observation.
- (d) To provide training in originality and invention.
- (e) To cultivate an understanding and practical use of the fundamental principles of arrangement, colour harmony, and self-expression, through the medium of art.

Some work in each of the five fields of art experience suggested in the Introduction to the Course should be undertaken in any well-rounded-out art programme. *Hence the teacher of the one-room rural school, who of necessity must group the grades in this division, should so arrange the work that all the important experiences are provided for in the year's programme, and that a good sequence of work is planned from year to year.*

GRADE IV

Teachers should read the Introduction to the Course and the outline of work for the previous grade.

The work in building a graphic vocabulary, begun in Division I, is continued and extended. As in Division I, provision should be made both for creative expression and representative drawing. A sufficient number of free-expression periods should be provided to encourage development of the former of these. (See under Drawing and Painting, Grade I.) In the latter type the objects drawn may be determined largely by the nature of the enterprises, or by the other work of the class.

Things to Draw.

1. Simple buildings and forms of shelter met with in the Social Studies journeys of this grade: various kinds of tents, huts, the kraal, pile dwellings, igloos, the houseboats of China, etc. These should be placed in suitable settings.
2. Simple figure drawings.—More attention to proportion than in preceding grades. Side views are suggested. Front views may be drawn, but the face detail may yet present difficulty.
3. Animal drawing:—the dog, horse, donkey, reindeer, camel, elephant, ox, or other animals used in transportation. (Teachers may find it necessary to make substitution for any of the above according to the needs of the enterprise being worked out.) Blocking in the figure and the use of action-lines on which the form is built should be practised. (See directions under "Drawing and Painting", Grade III.) Discourage over-attention to detail; encourage quick, vigorous sketch-

ing. As an aid in figure and animal drawing, cardboard-jointed figures, made up of ovals, may be used.

4. Simple flower forms suggested by the season, or by special-day activities and applied to special-day design problems.
5. Pictorial compositions in which the objects drawn above are employed; everything reduced to the very simplest lines; effects obtained by interesting colour contrasts and bold outlining (India ink).

In connection with this work in pictorial compositions, the following principles should be observed by the pupils in their drawings of outdoor scenes:

- (a) Near objects appear to be larger than distant ones of the same size.
- (b) The horizon line should be placed above or below the centre of the paper, showing more sky than ground or *vice versa*.
- (c) The most important object in the picture should be placed to the left or right of the centre, or above or below it.
- (d) The centre of interest in the picture should be clearly shown. Emphasis or dominance should be provided for by the size or colour of the figure or object.

Media: crayons, pastels, coloured chalks.

2. Colour.

In this grade a beginning should be made with the study of colour theory. Of necessity this will be very elementary. The method should be experimental.

A good colour chart is a necessary item of the teacher's equipment. This should show the six standard colours and the intermediate hues, in full and grayed intensities, as well as value scales (three values) of the standard colours—light, normal (standard), and dark.

(True prismatic colours are reproduced on papers which are readily procurable, and from which excellent colour charts may be quickly made.)

Collections of coloured pictures and other illustrative material, which permit the child to study the skillful use of colour, should be made and used freely by teacher and pupil.

In this grade the pupils should—

- (a) Experiment to discover how the intermediate hues are made; make practical application of these hues in connection with the drawing, design and construction work of the grade. (The intermediate hues may be made by the application of crayons to coloured papers, e.g., tone of red crayon over orange paper gives red-orange; by overlapping thin coloured papers and holding against the light; by mixing, in different proportions, coloured liquids.
- (b) Work with related colours.—Coloured papers used as backgrounds offer opportunities for experiment in using

colours which are adjacent in the colour circle, especially in connection with the work in design. Using an orange paper as background, work out the design with yellow and red crayons, leaving part of the design orange. The result will be a design worked out in related colours. The addition of neutral areas of gray, black or white will add interest. Considerable freedom of choice should be allowed children in the working out of such colour groupings. Free use of illustrative material should be made. From examination of good material of this kind children learn to appreciate the fine use of colour combinations made by artists and commercial illustrators.

- (c) Use bright and dull colours (red and orange, the brightest colours) ; bright colours against gray as an interesting colour scheme for design.
- (d) Use tints and shades (values) of colours. One tint and one shade of each colour, together with the standard or normal colour, will give a simple value scale. Many practical applications of these scales may be made.

3. Design and Arrangement.

Much of the work in this section will develop from the enterprise activity being carried on by the grade. Exercises in design may be classified under two headings:

- (a) Exercises in arrangement to develop an understanding and application of the possibilities of decorative composition; and
- (b) Designs with a definite purpose and use in view.

Design is arrangement, and it is important that children learn something of the principles governing good arrangement. In Division I the object was to introduce children to the idea of decorative arrangement and order through simple pattern making. These patterns illustrated the principles of repetition, alternation and emphasis (dominance), principles which continue to be guiding factors in the design work of this grade. In addition some attention should be given in Division II, and beginning with this grade, to the principles of balance, proportion and rhythm. In all work in design, drawing and construction, the aim should be correct proportions and good balance.

Design Exercises.

- (a) The work in design will be a natural outgrowth of the work in drawing, closely correlated with the work in colour. Interesting designs may be worked out in borders or panels, by using any one of the motifs suggested under drawing with cut paper or flat washes.
 - i. A booklet illustrating the different kinds of shelter used by the peoples visited in the social studies work of this grade; or

- ii. A booklet illustrating the modes of transportation used by the Indian, Eskimo or Chinese people; or
- iii. A frieze or moving picture illustrating either of the themes in (i) or (ii), worked out in any medium, with bright colours on a neutral background.
- (b) Making a simple poster alphabet. Making poster designs illustrating costumes or activities of children in the various countries studied; or illustrating themes in literature or health activities. (Use crayon or cut-paper.)
- (c) Special day problems: greeting cards, invitation cards, etc.
- (d) Cut-paper flower arrangement in bowls: interesting exercises in correlating design principles with colour study; pupils experiment with bowl or vase shapes.
- (e) Designs worked out from free cursive writing, where one letter, or two, is repeated to make an all-over pattern. Application of colour.

The teacher will find many opportunities for applying designs in enterprise work—book covers, envelopes or pocket for clippings, scrap-book covers, posters, etc. In making a scrap-book, there must be care and neatness in cutting and mounting the pictures, attention to the colour and size of the mounting paper, and good arrangement.

4. Construction.

Experiments in making cones, cylinders and prisms from paper, as preparatory steps to the construction of the habitations, etc., listed below. Close relation of this work to the enterprise activities.

Children have studied the shelters of various primitive peoples in connection with the social studies of this grade. These studies afford opportunity for the construction of various types of habitations in appropriate settings. (Use cardboard, wood, clay or a salt and flour mixture.)

Models of various modes of transportation or vehicles used in transportation would provide an interesting alternative; e.g., boats, airships, buses, automobiles, carts, wagons, etc.

Modelling may be employed to complement the work in construction outlined above.

Appreciation.—Pictures suggested for study.

Song of the Lark; Breton.

Spring Dance; Von Stueck.

The Child Handel; Dicksee.

Arabs on the March; Schreyer.

Happy Days; Iberd.

The Primitive Sculptor; Couse.

Polar Bears; Triese.

Note.—It is not to be expected that all of the work outlined above will be covered in any one year. Nevertheless, the

teacher should arrange that each year the pupils have some experience in each of the main fields of art expression.

GRADE V

Teachers should read the Introduction to the Course, the General Statement for this division, and the outline of work for Grade IV.

1. Drawing and Painting.

In this grade the drawings will be made with great freedom, provided that enough drawing instruction is given to meet the children's needs as they arise. An increasingly critical attitude toward their own work characterizes children at this stage, and directed periods of art instruction should be numerous enough to provide for steady and sympathetic growth of the graphic vocabulary. The pupils should feel that their ability to represent accurately what they see is growing. At this stage they welcome criticism of their work, and will re-draw their first crude sketches willingly, when they realize how they may be improved. To demonstrate how is the teacher's function, and this demonstration may occasionally take the form of a series of good questions about the drawing and the object.

Children at this stage enjoy experimenting to get desired effects, as a background against which to judge them is being built up. The powers of observation may be developed by having children make numerous quick sketches of objects after very careful observation. The function of memory drawing should not be overlooked in this connection, as such exercises add variety to the work. As in the preceding grades, the children should be encouraged to "swing in" the important lines first, and then to add details: "to draw large and fill the space". The use of coloured papers on which to draw adds interest and variety.

Provision should be made for free expression. Periods in which the pupil may express his own ideas in his own way offer opportunities for the development of the creative faculty, which otherwise rapidly declines at this stage. Use large sheets of paper on which children may draw freely with chalk or crayons, or large brushes, using calcimine paint. In the representative drawing the objects chosen may be those required by the enterprises being carried on by the class, or those required by other class work.

Things to Draw.

1. Objects connected with transportation:

- (a) By water—canoes, York boat, paddle steamers.
- (b) By land—pack-horse, dog-train, travois, Red River cart, covered wagon, etc.
- (c) By air—the aeroplane.

(In connection with such an enterprise as "In Search of the Western Sea", certain of the above objects could be employed in illustrations, as well as others which may be added. Attention should be directed to truthfulness of representation.)

2. Figure and animal drawing.—Figures in this grade should show more action. As an aid to drawing, a card-board-jointed figure (made up of ovals) may be used to demonstrate position and proportion.

The illustration of outdoor activities, e.g., in connection with such an enterprise as "The Sun Worshipers", offers good opportunities to draw the figure in action.

3. Objects in Nature.

(a) Types of trees—as in connection with the enterprise "Forest and Stream"; characteristic shapes and methods of representation; other landscape elements as in preceding grades—hills, winding roads and streams, buildings, etc.

(b) Flower forms in connection with the special-day problems, or work in science.

4. Pictorial composition.—See suggestions under Grade IV—Drawing and Painting.

This outline is suggestive only. The teacher is free, if necessary, to choose other forms than these, according to the activities being carried on by the grade.

2. Colour.

See the Grade IV outline under this heading. There should be continued application of the work covered in the preceding grade, and in addition:

(a) The application, in design, of warm and cool colours; their use in autumn and winter pictures, in costume, and in home decoration. Pupils should be led to see how a scheme of two warm colours may be improved by the addition of a cool colour.

(b) Colour opposites and triad colour-groups should be experimented with freely in design problems (poster work), and in decorative composition with paper (the book problem, border and surface patterns), etc.

Coloured paper backgrounds, as described for Grade IV, are suggested.

In all exercises practical applications should be made in order that children will realize continually the relation of colour to their everyday lives.

3. Design and Arrangement.

See the Grade IV outline under this heading for a general discussion of principles.

There will be a close correlation between this work and the work in drawing and colour. (Refer to "Drawing and

Painting" and "Colour".)

Collections of illustrative material should be made and used freely in connection with this work. Suggested media are cut paper, crayon, and flat washes, using crayon or paint, stencils, simple blocks for printing.

Exercises to be worked:

Designs from trees may be worked out and effectively used as follows:

- (a) For making tree posters or interesting posters in connection with such an enterprise as "Forest and Stream". Such posters could be used as incentives to home or school or community beautification.
- (b) Design units from any of the other objects listed under "Drawing"; e.g., the Indian figure, Red River cart, dog-train, canoe, wagon, etc., to be used for decorative purposes; borders for head-bands or tail-pieces in booklet decoration, or surface patterns for end-papers, etc. The teacher should give the children some idea of the broad field of pattern design, and they should be led to discover various interesting decorative units developed by artists for their design patterns.
- (c) Decorative composition units for the working out of panels in connection with health; the figure in action as the central motif. Use a broad, bold treatment; subordinate detail.
- (d) Border and surface patterns from upper and lower-case letters used appropriately. Interesting surface patterns may be made from cursive writing. Use one or two letters freely combined, and add colour.
- (e) Lettering.—A good type of poster alphabet as in Grade IV. Give plenty of practice in free printing and in spacing letters in words and words in a line and in arranging words to fit a definite space.
- (f) Special day problems: cards, invitations, etc.

Applications of the lessons in design and lettering should be made in all the other subjects of the grade. In the written work margins should be well proportioned and the spacing carefully planned. In mounting work, care should be taken in selecting a suitable mount and in placing the illustration in the best position on this mount.

4. Construction.

There is a close relation between this work and the enterprise activities. There should be in all work in construction careful planning, accuracy of measurement, training in working to scale, neat and accurate workmanship, judicious and economical use of paste, cardboard and other materials used, and careful attention to the relative sizes of all constructed objects used in a set-up. The aim is to have pupils learn through experience the necessity for forethought, and to have them enjoy the satisfaction which results from carefully

planned and accurate workmanship. If such training is given it cannot but have a valuable carry-over into the everyday life of the child.

Such themes as "The Exploration of Western Canada" or "Forest and Stream" or "Water in the Life of Man" offer excellent opportunities for a set-up involving construction.

Alternatively, the life of an Indian or Eskimo tribe might form the basis of an interesting construction project.

Materials to use: cardboard, wood, clay, or salt and flour mixtures, construction paper, etc.

Modelling may be employed to complement the work in construction outlined above.

Appreciation.—Pictures suggested for study:

The Santa Fe Trail; Young-Hunter.

The Music Lesson; Terborsch.

The Solemn Pledge; Ufer.

The Shepherdess; Le Rolle.

Herd in Sunlight; Claus.

The Retreat; Leigh.

Frightened Ducks; Benson.

Note.—The teacher is asked to read the note at the end of the outline for Grade IV.

GRADE VI

The teacher is strongly urged to read the Introduction to the Course.

1. Drawing and Painting.

The general aim of art exercises for the sixth grade may be summarized as follows:

- (a) To cultivate the imagination, observation, and power of expression and creation, through the exercises in drawing, design, construction, etc.
- (b) To develop in the child greater ability to experiment with materials, and to manipulate them.
- (c) To arouse and quicken the appreciation of beauty in one's environment.

The last should be considered of special importance with children of this grade. Art provides a training which enables the child to meet the needs of the home and community in providing for cleaner and more attractive home and community surroundings. In this connection close correlation with the work in science and health may be made. Hence, in this grade emphasis is laid to a greater extent on the "knowledge factor"; that aspect of the work which enables the child to gain information which, if applied in daily life, will make the world a better place in which to live.

Things to draw:

- (1) Drawing certain simple type solids—the cylinder, the cone, and the rectangular prism; drawing any simple

buildings based on these type solids that are required for the enterprise work.

- (2) Figure drawing.—As in Grade V, experience in drawing the figure in action. A simple beginning in drawing from the pose. The drawing of faces may prove interesting to children in this grade; e.g., in the singing class, in the physical training class, or in connection with music appreciation. The orchestra work may suggest the illustrating of pupils playing musical instruments.

An interesting application of this work may be made in the designing of health posters, particularly in connection with such an enterprise as "The Sun Worshippers".

In connection with the drawing of faces, the very simplest representation of features is suggested. India ink may be employed to advantage in completing features and for purposes of outline in pictorial composition.

Some appreciation of costume may be developed in connection with the studies of people met with in the enterprises; e.g., colonial and early French or English costumes; and suitable costumes for outdoor activities in connection with the work in health; e.g., winter and summer sports.

Pupils in this grade should be encouraged to make large free drawings, and to get real movement and swing into the lines. As in the preceding grades, they should be trained to "swing in" the important lines first in making a drawing, and then to add detail. Large sheets will be necessary, and where possible should be so placed that pupils can stand to draw. The chalk-rail is suggested, or simply constructed easels. In all of this work illustrative material showing figures in action as well as costumes will be a specific need.

- (3) Objects in Nature: birds and flowers, trees and other landscape elements as in the preceding grade, rendered in crayon, pastel or pencil. Special attention to the technique of pencil drawing; experiments with colour over pencil. (Pencil drawings must be "fixed" before applying colour washes over them.) Coloured papers offer possibilities for interesting results. As in the preceding grades, interesting work in pictorial composition should be tried. Here again there should be direct expression by means of flat washes and bold outlines.

2. Colour.

The colour work in this grade should be made as practical as possible; pupils should develop the ability to use colour intelligently in everyday life situations—in dress, in the home, and in all the important aspects of their living.

Ample illustrative material, as examples of fine use of colour, should be available in order to enrich their appreciation of the artistic use of colour.

- (a) The work of the previous grades to be continued: a fuller appreciation of the colour groups—analogue (related), complementary, and the triad. Working out exercises with different colour groups to discover by comparison the various effects it is possible to obtain; e.g., colouring the same design pattern (reproduced as often as necessary) with different colour groups to discover the most pleasing effect.
- (b) Graying colours by the use of the complements or by the addition of black or white; an extension of the value scale to include a range of five tones—white, light, medium, dark and black; consideration of where grayed colours may be best used; e.g., in costume, in home furnishings, in the decoration of objects of everyday use. Pupils should collect from magazines and other sources examples of schemes where grayed or softened colours have been used. Free experimentation in design work, using colours in full and in softened intensities for purposes of instructive comparison and for the development of a good colour sense. In this connection balance of colours is an important consideration. (A small amount of intense colour is balanced by large areas of grayed tones.)

3. Design and Arrangement.

Pupils should leave Division II with a fair working knowledge of the following principles of composition: repetition, alteration, emphasis, balance and proportion.

As in other grades, the design should be related closely to the work in drawing and colour.

Continue the collection of the illustrative material and employ a good filing system to make this readily accessible to the pupils at all times. Encourage free use of this collection, not as containing things to be copied, but as material which illustrates how good designers work out their problems in line, mass and colour.

Encourage pupils to plan several alternative ways of meeting a problem, to compare the results, to discuss possible ways of improving the designs, and to choose the one which best meets the conditions imposed by the material in which it has been worked.

Suggested media are cut paper, crayons, flat washes, stencils, and simple blocks for printing. (Linoleum makes a good medium here.)

Exercises to be worked:

- (a) Designs from tree shapes, from habitations (shelter), from birds, and from flowers.

These can be effectively used to make posters illustrating various ways in which community betterment may be brought about. The planting of trees and shrubs and flowers about homes and in parks, the building of bird-houses in gardens may all be emphasized. This work may be closely related to the health studies of the class. Camp life, outdoor scenes in connection with hiking, hunting and fishing, etc., may be worked out as decorative composition units. Cut paper may be effectively employed here.

Designs from things typical of early colonial or medieval life: the log cabin of Pilgrim days, the house of the French habitant, medieval buildings, costumes, and activities, as the motifs for poster illustration, mural decoration, sections of a frieze, or of a movie exhibit. Any of the designs above mentioned could be adapted to book-cover decoration.

- (b) Designs from trees, birds, flowers or habitations; decorative composition units, illustrating scenes from early colonial life, etc., adapted to the decoration of such materials as a hooked rug, an appliqué quilt, a cushion top, or a wall-panel.
- (c) Lettering.—The making of a good poster alphabet. Practice in planning words or titles to fit a definite space, for poster work or book decoration: planning cards for special-day events—Easter, Arbor Day, Remembrance Day, etc.

Making designs from large cursive writing with one or two letters freely combined. By repeating the lines, by alternating them, by reversing every other line, by having the letters touching or apart, and by employing good colour, the pupils may make some bold, free all-over patterns.

Making surface or border patterns by repeating capital or small letters.

- (d) Figure and Costume Design.—Designing colonial, early French or medieval English costumes for poster decoration, or for use on special-day cards; e.g., Thanksgiving Day; careful study of good illustrative material.

Use of well-designed figures (appropriately costumed) in mural panels or in friezes.

- (e) Stage Settings.—Designing stage settings in connection with the various enterprise problems being worked out. A miniature stage set-up requires careful consideration and planning of proportions, a well-designed proscenium arch, with side drapes and suitable back-drops.

The stage setting may be made for an early colonial scene, a scene from early or modern exploration, for a medieval town, monastery, etc.

Pupils should be able to produce simple rhythmic borders, surface patterns, decorative panels, etc., and to apply these to work envelopes, a scrap-book, or any other articles needed in connection with the enterprises.

The work in design should influence all the other activities of the class: the arrangement of the pages in note-books, the margins and spaces, size of chapter headings, placing of illustrations, etc., should all reflect the training given.

Mounted work should show a sense of good proportion. The planning of exhibits in the enterprise work offers opportunity for the application of the principles of arrangement.

4. Construction.

This work will be closely related to that carried out in connection with the enterprises and other activities of the class. There will be need from time to time for the construction of articles in cardboard, wood, clay, flour-and-salt mixtures, or in any combination of these.

The set-ups for the various enterprises will require much constructional work. Care should be observed to see that the different parts of such a school community undertaking are well related and balanced; that the work, when assembled, will be well proportioned in form and colour, giving an effect of unity to the whole.

More care in the actual constructional work, more neatness and accuracy of finish should be looked for in this grade. Children will be expected by this time to take proper care of all the tools and materials in use, to keep these in an orderly way and to be individually responsible for any part of the equipment used by themselves. Pupils in this division are particularly interested in experimental activities, and should be allowed to try freely various ways of reaching their objectives. The teacher will regard herself as an interested and encouraging onlooker, ready to offer counsel and advice when it is sought. Her aim should be to maintain enthusiasm and to create a desire in the children for finish and accuracy in all constructed work. It is essential that children be trained to work economically as well as neatly.

Appreciation.—Pictures suggested for study:

Pilgrims Going to Church; Boughton.

Horse Racing in Quebec; Gagnon.

The Boyhood of Raleigh; Millars.

Coming of the White Man; Reid.

The Vigil; Pettie.

Behind the Plough; Kemp-Welch.

The Gulf Stream; Winslow-Homer.

Note.—The teacher is asked to read the note at the end of the outline for Grade IV.

MINIMUM ATTAINMENTS FOR DIVISION II

1. Increasing ability to draw with free-swing lines and with attention to essential details the objects listed in the course.
2. Increasing ability to observe closely, and to draw from memory, "swinging in" the important lines first.
3. Increasing ability to make pleasing arrangements of the elements in a simple pictorial composition, with an application of the fundamental principles suggested in the course.
4. In addition to the attainments for Division I, the ability to recognize and to use the six intermediate hues and values of these, colour groupings (related colours and colour opposites), warm and cool colours, and intense and softened colours; with increasing taste in the application of colour to the situations of everyday life.
5. The ability to create and to arrange simple design units with some understanding of the principles—repetition, alternation, emphasis, balance and proportion. Increasing ability to letter freely, and to space letters in a word and words in a line.
6. The ability to experiment freely, to manipulate with increasing skill the materials suggested for use in the course, and to appreciate the value of working carefully and steadily towards a definite goal in order to achieve satisfying results.
7. Increasing ability to observe beauty, and to respond to it, in nature and in the products of industry, including the pupil's own work.

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 Bros., London, England.
The Art of the Child; Pelican.
The Appreciation of Pictures; Klar Dillaway—Brown
 Robertson Co.
Art Appreciation; Dobson—Pittman & Sons.
Education Through Pictures; Farnum—Art Extension
 Society.
A Method for Creative Design; Best-Mangard—Con-
 naught, New York.
The Enjoyment and Use of Colors; Sargent—Chas.
 Scribner's Sons.
Color in Everyday Life; Weinberg—Dodd, Meade & Co.
More Color for You; J. Willing—Abbott Educational
 Co.
P's and Q's of Lettering; Tannahill—Doubleday Page
 & Co.

PUPIL READERS (for library).

Art Stories, Books 1, 2 and 3—Curriculum Foundation
 Series.
Picture Talks for Children; Maude Oliver—Brown
 Robertson Co.
Stories Pictures Tell; Carpenter — Rand McNally,
 Chicago.

Music

GENERAL INTRODUCTION

“The fine Art which, more than any other, ministers to human welfare. Where there is beautiful music, it is difficult for discontent to live”.

—*Herbert Spencer.*

The course in Music has been built with the limitations of the rural and small-town school-teacher clearly in mind. In schools where there are specially trained teachers and competent supervision, it is reasonable to expect that the work covered in each division of the school will exceed, at least by one grade, the minimum requirements laid down in this course.

General Aim:

The chief aim of Music instruction is to develop among children cultural interests and appreciations which will enrich their lives not only at school but during their leisure time; to give a training that will result in the development of a reasonable amount of skill and a love and taste for good music that will function in their scheme of living both now and in later life. “Children must be helped that their lives may be enriched from beginning to end”.

The Teacher:

In order that Music may function in a vital way in the lives of children, the teacher must have a genuine interest in Music as an educational force. Although it is not necessary that she be specially trained in this subject, it is expected that she will avail herself of every opportunity for self-improvement in order that she may grow in musical power. Much help is to be had from the reading of books listed under “Teachers’ Helps and References” and from the courses in Music offered at the Summer School for Teachers. “Steady musical progress is the right of every school child”, and the good teacher will achieve very satisfying results if she will be guided by the precept, “One learns to do by doing”.

Scope of the Course:

A complete and well-balanced plan for Music education in the elementary school will provide for a wealth of experience in *song-singing*, in *music-reading* and in *listening to music* for pure æsthetic enjoyment. Where teachers are competent to guide such effort, additional work in *original composition* is possible with elementary school pupils. The desirable outcomes of such work will be “simple, musically-significant and well-balanced tunes”.

Appreciation:

That the children may grow in the appreciation of music is the main purpose of the whole range of musical experiences conducted under the teacher's guidance. "Every music lesson is a lesson in Music Appreciation".

Although appreciation comes largely through participation, yet listening to music will provide a richer musical experience than the pupil's own limited performing ability makes possible. The phonograph or the radio is eminently practical in bringing to the hearing of children a greatly expanded range of musical expression: the rich palette of orchestral tone colours in various combinations; the unlimited possibilities of the full symphonic orchestra in expressing every shade of emotion; the illustration of all styles, forms, moods and periods of musical composition—all this fairyland of musical expression may now be brought into the schoolroom and made a valuable asset toward the musical education of children. Teachers are strongly advised, therefore, to make every effort to secure the necessary equipment to provide for this work. Success will depend upon the instrument and records used and the adaptability of the teacher.

Music and Integration:

Interesting possibilities of integrating music in the general educational scheme are to be found:—music and literature; music and nature. Folk songs of many lands and art songs of different periods are available to add interest to the work in Social Experiences; folk dances and art dances taught in the physical education work have genuine musical value, while *suitable* musical compositions used during physical training drills add much to their pleasure. Teachers are to be reminded, however, that *not all* phases of music instruction lend themselves to the integrated plan and these should not be neglected. All material chosen for association with the enterprise should have *definite musical value*.

Work Common to All Grades:

To simplify the work in the one-room school, certain phases of music instruction may be taken with all grades together. The teaching of rote-songs suitable for all pupils is suggested—national songs, patriotic songs, folk songs of many lands, seasonal songs, songs for special days, community songs, well known songs by Great Masters. With the group as a whole, a good deal in the matter of voice-training can be done, as good vocal habits—pleasing tone, correct breathing, smooth phrasing, proper pronunciation, finished enunciation, interpretation—should characterize the singing of all pupils. Correlation of physical training with music allows for general rhythmic work being carried on to a limited degree, while much of the work in appreciation—listening to music for pure aesthetic enjoyment—will, of necessity, have to be done with all grades combined. Rural school-teachers, however, are not

to interpret the above as being the only music work to be done. Pupils in Division I will need specific instruction in voice training and rhythm and should learn many, many songs particularly suited to little children, while pupils in Division II will need specific direction, particularly in the work in Music Reading.

Minimum Equipment:

1. A teacher who knows and is able to do what she is to teach the children to know and to do.
2. Fifteen minutes a day, at least, devoted to music.
3. Suitable song books in the hands of pupils.
4. A pitch-pipe or a tuning-fork for the use of the teacher.
5. A phonograph and suitable records.
6. Recommended song books in the school library from which material for the enterprise and for special-day activities may be selected.

DIVISION I

To simplify the course, the work of Division I has been confined to rote-singing and voice-cultivation, to rhythmic training and to listening to music, deferring the work in music-reading until Division II. Some work in the *preparation* for music-reading, however, should be attempted in the final year of Division I; i.e., (1) aural analysis of songs learned by rote to discover their phrasal construction; (2) introduction to notation by means of the "Observation Song" or the "Chart Song". In rural schools where the pupils in the third year are very few in number, this work may be deferred until the first year of Division II. In graded schools where there are specially-trained teachers and competent supervision, preparation for music reading should be made in Grade II, work in music-reading to begin in Grade III.

Aims:

General aims for Division I may be stated as follows:

1. To give children a wide song-experience by teaching many suitable songs by rote, beginning with short, simple songs; these gradually increasing in length and in interest in the second and third year.
2. To cultivate a good singing tone, increasing the ability to match tones accurately and thus gradually eliminating the monotone habit.
3. Through the use of various recommended devices to develop in children the power of effective rhythmic expression.
4. To develop the ability to listen with increasing enjoyment and understanding to music presented informally by phonograph, by radio or by individual performance.
5. To develop the ability to perform individually as well as in groups.

The music activities of Division I will thus naturally group themselves under three general topics—*Tune, Rhythm* and *Appreciation*, terms not used in an exclusive sense but for convenience of classification. Although the work is outlined by grades, it is understood that all pupils in the division will be handled as one group in the one-room school. The teacher, therefore, having made herself familiar with the work to be covered in three years under the topics—tune, rhythm, appreciation, should so plan her work that a suitable sequence of activities is arranged for and provision is made for steady growth in all work.

GRADE I

I. Tune:

The most difficult problem of the first grade is to teach *each* individual child to “carry the tune”, using a light, pleasant, true-to-pitch voice. This should be the teacher’s constant aim.

The Child Voice.—The child’s vocal organs are small and delicate; hence the tones produced should be light, fine, high and clear. The desired sweetness of tone is obtained through easy, unforced, gentle singing, not breathy nor subdued. The delicate use of the voice also imparts flexibility and helps toward the preservation of the pitch. Other essentials are smooth passing from tone to tone, correct shaping of lips in vowels, giving neat effect to the consonants. Above all, however, the minds and imagination of children must be alive to the content of the text if the singing is to be a glowing, emotional expression. “From the outset the child should be encouraged to sing beautifully, should be praised when he does so, and should be made to feel that something is lacking when he does not”.

Good results in voice-training will depend on—

1. *The Teacher’s Example.*—She must always use the best possible tone quality in her own singing and speaking voice—children imitate faults as well as virtues.
2. *Material.*—All songs should be simple, tuneful, rhythmic and should appeal directly to children. They should present a variety of key and rhythm. The compass of the first songs should not extend beyond an octave (E flat to E flat) within the treble staff. The first songs should contain frequent occurrences of the tonic chord track (Do, Mi, So) and notes of only one, two, three, four-beat duration. It is important that all songs be kept *up* to the proper pitch; *hence the teacher should always have an instrument to use in starting songs.*
3. *Judicious use of such exercises as* “humming” songs learned by singing them to “loo” and “moo” in order to eliminate harsh tones and to bring the nasal resonators into play. It is important that children learn to hum properly—lips touch lightly, the teeth are apart, the tongue resting easily against the lower teeth. A

slight sensation is felt at the bridge of the nose when a light, loose humming tone is produced. Breathing exercises introduced in the spirit of play are suggested:—Smelling the flowers, then lightly blowing the petals away; blowing bubbles; “smell the clover” then “moo” like a cow, etc. These help to establish the habit of “waistline” breathing and the gradual relaxation of breath.

4. *Meeting the singing needs of the individual child.*—The teacher should early (a) discover the singing ability of each child. This is best done by tone-matching games—first individual tones, then two or more tones arranged in a little tune; (b) divide the group—best voices across the rear rows, medium voices in next rows towards the front, voices dull in tune-sense in front; (c) give *regular individual help* to monotones.

Singing is a healthful exercise only when the posture is good.

(1) *Sitting*—backs straight, hips (not shoulder-blades) touching the back of the seat; (2) *standing*—chest up, shoulders down, hands hanging slightly in front, weight of body slightly forward, feet slightly apart. These postures induce a sense of buoyancy and readiness. With all there must be perfect pliancy, no suggestion of rigidity.

Special Treatment of Monotones:

The term “monotone” is applied, as a rule, to any child who cannot carry a tune. These children present a serious problem but with patience and individual help, together with pertinent tricks in teaching, *they can be taught to sing*. Abundant opportunity for listening and for singing should be given. Provided there is no physical handicap there should not be an “out-of-tune” left at the end of Division I.

1. Place each monotone in front of a pupil who can sing. Whole class sings a phrase of a song. Good voices sing this phrase gently and directly into the ears of the monotones; monotones imitate, being encouraged to sing easily and lightly. Humming lightly on high tones may help them to discover the “upper story” of their voices.
2. Use any imitation device which has a tendency to make the pupil use a high pitch. These may be introduced during a nature story or a “musical game”. The purpose is to arouse the imagination of the child so that he will “think” high tones:—Imitate the wind (—oo—oo); imitate an aeroplane, trilling to “r” (tip of tongue behind teeth), getting higher and higher; imitate a siren whistle by sliding the voice up an octave and back; imitate the tooting of a railway engine on a selected “do”, then on “so”; imitate the crowing of the rooster, the buzzing of bees, etc.
3. The musical “call” will help children to match tones and to produce *long, high, smooth* tones which consti-

tute the first aid to good singing. On the tones "do—so" or "do—do", pitching them about the key of F or G, the teacher calls the whole group or an individual pupil—"children", "Mary", "Harry". The group or the individual responds on the same *high* pitch—"We're here", "I'm here", *prolonging the last tone*. The good singer may call a non-singer, who is encouraged to reply on the same high pitch. The calls may be repeated in slightly higher keys. On the same pitches the phrase—"Pop goes the Gun!" may be used, first having it sung on "do", then on "so". This device sometimes startles monotones into the use of the "head voice", which when once experienced, may easily be reproduced. All such remedial work should be introduced in the spirit of play. Much encouragement should be given and the teacher should bear in mind that the only way a child can learn to sing is by *trying to sing*. When an "out-of-tune" can sing a short tune he should be allowed to sing with the group. (For further help in this work the teacher is referred to books listed under "Teachers References for Self Study".)

Procedure:—All songs taught by rote. Song presented as a whole, artistically, at least twice, then taught, phrase by phrase, children imitating the teacher at some motion of teacher's hand without breaking the rhythm. (The term "phrase" should be used in the class conversations and made familiar to the pupils as the name given to a musical thought.) If children cannot give back the phrase, either the song is too difficult or it has not been heard often enough. With beginners the phrase may have to be broken into two sections. One stanza only is to be taught in one lesson.

It is important that (1) all songs be sung *in the proper key*, hence an instrument to test pitch is essential; (2) the teacher know the song so well that her eyes may be upon children, not upon words; (3) the teacher avoid making a practice of singing with the class; (4) an accompaniment be used to give additional pleasure in music *only after* the song has been learned.

Individual Singing:—Singing alone should be begun in the first year and continued throughout all grades of the school. Every child should sing alone as often as is possible, since singing alone should become as natural as individual recitation. This may be done, first, by selected children, then, down the rows from back to front. If a child sings better than the one behind he is promoted by changing places. Much encouragement should be given in order that all singing be always a pleasurable experience to children.

The Daily Plan:—Each singing period should be carefully planned by the teacher so that the work outlined shall be covered and the pupils' love of music be increased. While repetition is necessary in order that material may be suffi-

ciently well learned, yet variety is necessary to maintain interest. The following is a suggested routine for a rote-singing period of fifteen minutes:—

1. Begin the lesson with a familiar song. (Vary these in each lesson.)
2. Individual singing by selected children or down the rows from back to front, each child singing a phrase of the song.
3. Introduce a new song.
4. Monotone drill.
5. Close the period by singing a familiar song or by having a short selection played on the phonograph.

II. Rhythm:

Rhythmic training should begin in Grade I and should be continued throughout succeeding grades. In this work the children are encouraged to respond physically to music heard. This work will do much to “induce poise, self-confidence and charm in children”.

- (a) *Controlled rhythmic movement*:—regularity of muscular response in clapping, walking, marching, skipping to music. All movements should be free and large if the activity is to develop the rhythmic sense. (March always lightly and gracefully.)
- (b) *Free rhythmic movement*:—Play or sing short selections. Let children listen and decide what the music says and then express it by their own bodily movements. If the music says: walk, run, march, skip or sway arms as though rocking baby, pupils should interpret it according to their own experiences. A little guidance may be given at first to avoid confusion.
- (c) *Singing Games* provide excellent rhythmic training—bodies should be free and relaxed. Movements should be easy in order that singing tone be good. With action songs each side of the class may take turns in performing the actions, while the other side sings.
- (d) *The Rhythm Band*:—This forms the beginning of an educational activity which provides a valuable background for the study of orchestral instruments. It arouses interest in these instruments. A simple beginning should be made in this grade and the work continued in Grades II and III. (1) The teacher may begin with a simple march, giving each child a drum (made from round cardboard boxes). The example may be given by voice, piano or phonograph. (2) After each child can respond to the regular pulsation of the music with the drum, the teacher may introduce another instrument, the bells (drums on strong beat, bells on weak beats). Gradually other instruments may be introduced—castanet, triangle, tone-blocks. Those not having instruments may mark pulses by clapping or tapping.

III. Appreciation (See General Introduction).

With pupils of this age the approach in a phonographic listening lesson should be from the standpoint of the mood portrayed. The intellectual approach as, for example, in the study of structure, instrumentation, etc., is left for later attention. The correlation of music with pictures or verses of simple poetry makes a pleasurable listening lesson for smaller children. Other topics related to mood that may be developed through the playing of suitable records are free rhythmic expression; dramatization of little poems; descriptive music. Records should be played frequently for quiet, attentive listening without comment by the teacher, fulfilling the same purpose, in relation to music, as does the occasional reading of stories to children in relation to literature.

The following material is suggested for listening lessons. The numbers given are for Victor records:

(a) *Correlation with pictures or with poetry.*

Show pictures—soldiers marching, or horses galloping or mother rocking baby. Then play the following records:

- 19880 "Soldiers March"—Schumann.
- 20153 "The Wild Horseman"—Schumann.
- 20174 "Rock-a-by-Baby".

Verses relating to "Pussy Cat", "Soldiers", etc., may suggest the following records to be played:

- 20621 "Pussy Cat".
- 20401 "The Clock".
- 73366 "The Wooden Soldiers".

(b) *Rhythm*—to develop alertness in response to rhythm:

- 20401 "March"—Gurlett.
- 73366 "The Wooden Soldiers".
- 20401 "The Clock".

(c) *Descriptive Music*—listening for a particular thing.

- 20401 "Knights of the Hobby Horse"—Schumann.
- 20153 "The Wild Horseman".
- 20164 "Legend of the Bells"—Planquette.

d) *Quiet Listening*—for pure enjoyment.

- 1152 "To a Wild Rose"—MacDowell.
- 19923 "The Music Box"—Liadov.
- 20986 "Golden Slumbers".

(e) *Songs for Little People*—Nos. 216525-26-27.

Victor Appreciation lessons for lower school.

- 20743 "Gingerbread Man" and "Giants".
- 20347 "The Postman".
- 20174 "Cradle Song".
- 20987 "Baby Dear".
- 20621 "Pussy Cat".
- 19891 "Riggety Jig".
- 20806 "London Bridge".
- 17568 (Folk Singing Game).

Note:

There are 5 useful selections on record 20743.
There are 9 useful selections on record 20347.
There are 8 useful selections on record 20401.
There are 4 useful selections on record 20153.
There are 8 useful selections on record 20164.
There are 2 useful selections on record 19923.
With this considered, the expense is not so great.

GRADE II

I. Tune:

The teacher is advised to read "Introduction to the Course" and the outline for Grade I.

- (a) *Rote Songs*.—Further songs taught by rote. The songs should be somewhat longer and of greater melodic and rhythmic interest. The compass represented may be slightly wider than characterized the songs in Grade I, a safe compass being from D below staff to E, 4th space.

The work in voice training (including remedial work with monotones) to be continued. Teacher is referred to directions under "Tune", in outline of work for Grade I.

The pupils in this grade should be expected to better appreciate beauty of tone and to show in their singing that "music must have beautiful tones and it must be in tune or it is not good music". The teacher should direct the attention of the class to the singing of the good voices. She should have the best singers sing often as a group for the rest. The teacher's example is all-important in this connection also. (Pitch pipe or tuning fork in the hand of the teacher.)

- (b) *Analysis of Melody Structure—Aural Training*.

- (1) *The phrase*.—The interest of children should be directed towards listening to the larger successive thought-units (phrases) of songs so that they may become able to listen to the phrase-units in all music, *an altitude of mind that is of basic importance in the appreciation of music*. The repetition of phrases is the important structural characteristic to note. At first select a four-phrase song with phrases one and two, alike, three and four, alike. Have the class sing to "loo". Have successive phrases sung by successive rows. Pupils soon note repetition. Such a song may be called an "echo" song. Develop that too much echoing in songs is not desirable, that when phrases reply to each other we wish them to say more that is new and interesting. This may lead directly to simple creative work—*aural melody making*. The children are given a short phrase which appears to ask a question (announcing phrase)—/m:f:s:l:/

s:—:—:/—“Do you like ice cream”? Various good replies may be given, i.e., /d:s:m:r:/ d:—:—:/—“Yes, I surely do”. (responsive phrase). This Question and Answer game may be developed to a degree at this stage.

- (2) *Tune Direction*.—While teacher directs attention to “high” tones and “low” tones, the class may show with the outstretched hand where these happen in the melody. In addition the rise and fall in melody may be pictured on the blackboard by a chalk-line or by short, horizontal dashes, adjusted to the upward and downward excursions of the tune.

II. Rhythm:

The work of Grade I to be continued.

- (a) *Controlled rhythmic movement*.—The most fundamental element in music being rhythm, the children should now be brought to show, by some physical response, their appreciation of the regular recurrence of accent as a rhythmic factor. While they sing familiar songs with the syllable “loo” they may be allowed to clap, at a steady rate of speed set by the teacher, the claps to be co-incident with the pulses of the music. As suggested by the music, some claps will be louder than others. As this progresses, the teacher may show the “pulse-picture” of the song on the blackboard, showing the type of measure-grouping; whether it is strong-weak; strong-weak-weak; or strong-weak-strong-weak. The strong pulse is marked by a heavy down-stroke, the weak pulse by short, light upward strokes. The terms, “two-pulse”, “three-pulse”, “four-pulse”, are applied. Downward loops may be used instead of strokes. The response may be modified by having only the strong pulses clapped, the weaker ones shown by arm-movements, palms down, as if patting the air. Half the class may sing, the other half clapping the pulses.
- (b) *The Rhythm Band*.—In the above connection, the teacher may make further use of the percussion instruments. Rhythm sticks, drums and tone-blocks may mark the strong pulses, the triangles, tambourines (shaken) and castanets sounded softly on the weak pulses. *The singing must be clear and buoyant*, regardlessly of whatever physical reactions are in progress.
Half the class may tap the rhythmical outline of the song while the other half claps the pulses, assisted by the Rhythm Band, the singing supplied by the teacher or by a small choir of children.
- (c) *Free-rhythmic Movement*.—Play short selections. Let children listen and decide what the music says, then express it by their own bodily movements, according to their own experiences—skip, run, march, sway, etc.

Teacher may give suggestions if needed. More interesting results should be expected than in preceding grade. Children should be encouraged to move with freedom, all movements being large, free and graceful.

- (d) *Singing Games* provide valuable rhythmic training. Work begun in Grade I should be continued. Movements should be graceful and easy in order that the singing tone may be good.

III. Appreciation (See General Introduction).

The following material is suggested for work in Appreciation. The numbers given are for Victor records:

- (a) Music presenting different types of marching—soldiers, toy soldiers; bears or elephants; cavalry; wedding marches, funeral marches. Suggested records:—"Sabre and Spurs" (Sousa) 20305; "Of a Tailor and a Bear" (MacDowell) 20153; "Soldiers' March" 19881; "Lions and Elephants" 7220; (From Carnival of Animals) 2125; "Tin Soldiers" (Tschaikowsky) 20399; "March of the Toys" (Herbert) 55054; "The Little Lead Soldiers" 69730.

Dance Types—The waltz; minuet; gypsy dances; Russian dances; Indian dances, etc. Suggested records:—Waltzes 20401; Minuet (Gavotte) 20164; "Nut Cracker Suite"; "Russian Arab and Sugar Plum Fairy" (Tschaikowsky) 6616; "Minuet Célèbre" (Boccherini) 20635; "Indian Game Song" 20164.

- (b) For rhythmic response—correlating pictures with suitable music. Suggested records:—"Rock-a-Bye-Baby" 20174; Gavotte, Children Dancing, 20164; Waltz (Brahms), Trees Swaying, 20162; "The Wild Horseman" (Schumann), Prancing Horses, 20153.
- (c) Music of some great composer (Hadyn, Mozart, Mendelssohn) coupled with interesting incidents in their lives. Suggested records:—"Seraglio" (Mozart) 19926; "Minuet" (Mozart) 20440.
- (d) Descriptive Music:—(A Hunting Scene) Gallop rhythm, "Little Hunters" (Kulak) 20153; "The Postilion" (Godard) 20401; "Of a Tailor and a Bear" 20153; "The Wild Horsemen" 20153; "In the Clock Store" A5684; "Dawn in an Old World Garden" 20965; "The King's Breakfast" 45387.
- (e) For quiet listening:—"The Birds' Breakfast" 20347 (There are 8 other songs on this record); "Boating" (Kulak) 20401; "Evening Bells" (Kulak) 20079; "The Waltz of the Flowers" (from the Nut-Cracker Suite) (Tschaikowsky) 6617; "Vermiland" (Swedish Folk Song) 19923.

GRADE III

I. Tune.

Teacher is advised to read "Introduction to Course and Outlines for Grades I and II".

- (a) *Rote Songs*:—The child's musical growth, at this stage, is dependent upon the songs learned by rote. Rote songs provide a cumulative fund of musical impressions, the constant conversion of which to expression, develops a sense for musical values.

The songs must be carefully chosen from the standpoint of range, length, technical difficulty and text. Beauty of poetry and of melody is the first standard by which a song will be accepted or rejected. The words must be such as to play happily upon the imagination; the music must be such as to heighten the poetic sentiments. While seasonable songs are desirable they need not be considered a necessity. The production of the tone on the part of both teacher and children must be free, flexible and frownless. Through easy, light singing, there will ensue that effortless, floating tone that makes easy of achievement neat, clear words, springy accents, shapely phrases.

Each child should have a copy of the first book of the authorized music readers. A music course properly taught necessitates *music books in the hands of the pupils*. In the book will be found numbers of songs designed for rote teaching. Children should observe the notation of these songs while learning them by rote, as much will be gathered from the notation that will prove a help in the later work in music reading. A tuning fork (Sheffield C fork, international pitch) or a pitch pipe is an indispensable item in the teacher's equipment.

Constant vigilance should be the watchword in detecting the slightest flattening or sharpening of the pitch while the song is being rendered and, when detected, the cause should be discovered and steps taken to correct it. *Possible causes*: mental lassitude; poor posture; insufficient breath support; pressing the tone; weak feeling for accent; slovenly enunciation; failure to sustain the longer tones; influence on the class of one or two individuals with imperfect sense of pitch; bad air; room too warm or too cold.

- (b) *Analysis of Melody Structure* (Aural Observation Song):—The work of Grade II should be continued, with further work in phrasal analysis of songs to discover: (1) the number of phrases, listing them on the blackboard by numbers, one below the other; (2) which phrases are alike in tune and which are unlike, listing them one below the other, by using capital letters and coloured phrase-marks (curved lines).

Phrase 1 may be called A and designated by a curved chalk line of a bright colour. If the next phrase has the same melody it will be named and pictured the same as the first phrase. If different, it will be called B and represented by a different colour. For each different phrase a different colour is used. Phrases partly different are called A, B, C or D *changed*, a mark put against the letter and a new colour added to the phrase-line *where change occurs*. For a phrase to be called "changed" it must be identical with one of the former phrases throughout, at least, half its length. A phrase that is merely the transposition of a previous phrase in a higher or lower scale level can neither be considered identical nor modified. It may be called "lifted" or "lowered" and distinguished from the original phrase by a horizontal dash at the top or the bottom of the letter, e.g., $\overline{A}$ (lifted) or $\underline{A}$ (lowered).

The purpose of this work is to develop "phrase-consciousness"—*an important step towards the appreciation of music*. These analyses are best made through the use of familiar (repertory) songs of simple type sung to "loo" or "laa" (not words). These comparisons are made with respect to *tune only*, not rhythm.

The Question and Answer Game may be continued in this Grade as a lead to simple melody-making.

(c) *Introduction to Notation* (Preparation for Music-Reading).

As a preparation for the work in Music Reading which should begin in Division II, introduction to notation should be made in this grade, unless conditions are such as suggested in introduction to Division I. It is rendered pleasurable to young children when the process is developed out of the note picture of simple songs already in their repertory. From four to six neatly constructed charts of songs, selected from the first music reader, should be used, three of them having Do on the first line of the staff and three with Do on the second space, one stanza of the words to be printed underneath the notes. These "Observation Songs" should contain, (1) no other note values than the quarter, half, dotted half and whole note, with occasional quarter and half rests; (2) prominent references to the tonic chord (Do-Mi-So); (3) no difficult skips; (4) well-balanced phrases; (5) compass within the treble staff; (6) pleasant tune, bright rhythm, happy text.

The so-fa note names (syllables) are introduced as a second verse.

The terms used and understood as a result of this work are: staff, staves, line, space, note, rest, bar-line, accent. The significance of the upper figure of the time-signature is also made clear through discovery of

the pulse-pattern by clapping. One-beat, two-beat, three and four-beat notes and rests are readily recognized.

The rules for the relative location of Do, Mi, So and Re, Fa, La, are memorized.

Procedure:

- (1) The chart (or blackboard copy) is exhibited as the *picture of a song*; a first line "Do" song, one phrase to each staff. The terms "staff", "staves", "line", "note" are given, explained and written on the blackboard; lines and spaces numbered upwards, staves numbered downwards.
- (2) Teacher sings words while tapping the pulses above the notes; class sings the words while pointing the pulses towards the chart.
- (3) Teacher sings the so-fa note names (syllables) as an extra stanza while tapping above the notes, going over it two or three times. This should be done slowly, smoothly, and clearly enunciated.
- (4) Teacher sings first phrase with syllables (so-fa note names); class imitates. Each phrase is taken in turn; then phrases combined.
- (5) Teacher sings any phrase with syllables; class finds it and a child is asked to locate it by passing his hand across the phrase.
- (6) Teacher sings a small note group ("motive" or "figure") with syllables; a child comes forward and "picture-frames" it by enclosing it with two short rulers. Repeat with numbers of "motives" and "figures".
- (7) Teacher "picture-frames" phrases, "motives" and "figures"; class sings them with syllables.
- (8) Teacher questions class on names of single notes. What did we always call the note on the first line? What other note is called "Do"? Where is the note called "So"? How many "Mi" notes are there in the third phrase? Etc.
- (9) Class will clap the pulses while singing with "loo" or syllables. There is something shown in the picture at every strong clap. It is a "bar-line" and is the sign of the strong accent.
- (10) Do all the notes look alike? Develop the terms "two-tap-note", "three-tap-note", "one-tap silence" (or rest), etc.
- (11) Class sings with syllables from books.
- (12) By means of a blank staff of ample dimensions, drawn on the blackboard, impress what has been learned by pointing to the staff positions. Show the clef and key signature though they need not be explained at this time.
 - (a) Point the note positions of song, class singing syllables.

- (b) Point again, dwelling on and repeating all notes not in the tonic chord (Do—Mi—So).
 - (c) Point, making excursions back and forward over outstanding note groups of the song.
 - (d) Point out note groups; class sings after observing what was pointed.
 - (e) Teacher sings groups; individuals come and point what was sung, singing as they point.
- (13) Teacher writes note groups; class sings them while pointing the time toward the example.
 - (14) Using a chart with "Do" in the 2nd space, go through the whole process again.
 - (15) Teacher develops a whole tune on blackboard staff, motive after motive, the class singing each motive as it is written.
 - (16) Give rules for the relative location of Do, Mi, So, and Re, Fa, La; class to memorize.
 - (17) Proceed to books, the class sight-singing the simplest in the keys of first, E flat, E, A flat, A; then keys of G, F; then keys of D, B flat, and C. These are the nine common keys. The children tap the pulses above the notes.

II. Rhythm.

- (a) The work in Grade II to be continued.

As a variation a simple song form, e.g., "Feeding the Flock", page 73, *Progressive Music Series*, Book 1, having a phrasal arrangement, A, A, B, A, may be selected. Children are arranged into an A and a B ring. The A ring group step the note-rhythm of the first two phrases as they move around singing to "loo". The B ring promptly take up their phrase (with "loo") as they move around in the opposite direction. The A ring complete the song.

- (b) *The Rhythm Band*:—In conjunction with the above, certain instruments of the Rhythm Band may be chosen to play while the A ring is singing; certain others for the B ring. Either a separate group or all children may have instruments. The plan is open to variety of treatment. Other songs with more than two contrasting phrases should be then taken, certain instruments allocated to the different phrases. Some instruments (rhythm sticks, triangles, wood-blocks) should mark the rhythm-pattern of the notes while others mark the strong and weak accents (drums and cymbals for the strong beats; bells, tambourines, castanets for the weak).
- (c) *Rhythmic Games*:—In addition to work done in preceding grades, simple folk dances may be introduced in this grade, to correlate with the enterprise work. Free, easy, graceful movements to be encouraged.

III. Appreciation.

1. *Pantomimic Playing of Orchestral Instruments.*

Show pictures of the following instruments. Charts of these may be obtained by applying to the Victor Phonograph Company (Educational Department), Montreal: bass drum; small drum; castanets; cymbals; trombone; tambourine; violin; xylophone. Each should be shown separately and the action of playing described. All may make the action for each instrument; then each row is directed to play the instrument assigned them while the teacher counts 1, 2, 3, 4; 1, 2, 3, 4, etc., for a few measures. See *Music Appreciation Lessons (Lower Grades)*, Lesson 21; published by the Victor Phonograph Company. Then play record No. 20305, the children playing their imaginary instruments while listening to the music.

2. *The Violin.*—The children are now shown a picture of the violin, the main voice of the orchestra, and become acquainted with the tone of the instrument. If it can be arranged, have someone come and play the violin for the class. The following records are especially recommended for the purpose of illustration:—"Humoreske" (Dvorak) No. 20164-A; "Sweet and Low" (Barnby) No. 20174-A; "Serenade" (Moszkowski) No. 20079-B.
3. *The 'Cello.*—Full name "violoncello" (pronounced vee-o-lon-chell-o). Looks like a very overgrown violin. Too big to tuck under the chin, it is held between the knees and supported by a peg on the floor. Used to be called the "knee fiddle". Played with a shorter, heavier bow than that for the violin. Like the violin, it has a very sweet voice but much deeper. Often heard playing with the violin. First, play Schubert's "Cradle Song" (No. 20079), a beautiful illustration of 'cello tone. In the "Berceuse" from "Jocelyn" (Godard) No. 20130, the violin and 'cello play alternately and together. Use the first half of the record. Direct hands to be put up when the violin plays; again when the 'cello plays. Then play the whole selection.
4. *Distinction of Stimuli.*—Play "Trumpeter and Drummer" (Bizet) No. 19730. Does this music make us wish to dance, run or march? Every little while an instrument is heard which seems to say, "We are marching along". Show a picture. Show a picture of a trumpet. Count the number of times the trumpet speaks. Raise rulers to lips, like a trumpet, each time it is heard. The trumpet makes us feel brave like soldiers.
5. *Descriptive Music.*—Tell the children about the marionettes or mechanically activated dolls so popular in European "puppet shows". One of these pasteboard

creations has lost its head and the others are giving it a funeral. The music the class is to hear tells the story of the funeral. Play the record, "Funeral March of a Marionette" (Gounod) No. 35730. The children should be led to visualize the incidents in the story during the music's progress. Hands to be raised whenever they hear the cry of the chief mourner. They may dramatize it.

Relation to Pictures and Nature.—Find a picture of a swan and another of a honey-bee buzzing busily amongst the flowers. The contrasting moods of serene peacefulness and bustling activity portrayed in the pictures should be effectively presented by the teacher. Then play the following records *without naming them*:

(1) "The Swan" (Saint-Saëns) No. 1143.

(2) "The Bee" (Rimsky-Korsakoff) No. 6579-B, or "The Bee" (François Schubert) No. 810.

The class will write down which piece (No. 1 or 2) reminds them of the picture of the swan and which reminds them of the bee.

6. *The Music of Some One Great Composer.*—For instance, Robert Schumann. Interesting incidents of his boyhood days. Suggested records:—"Wild Horsemen" No. 20153; "Träumerei" No. 19854; "Soldiers March" No. 10881.

To supplement the above, the following records are suggested as interesting to use in connection with a possible study of life in other lands:

No. 6616 Dance of the Chinese Doll.

No. 42480 Chinese Musical Instruments.

No. 22173 Yoo Yen March (Arabian).

No. 20441 In Scotland, China, Germany.

No. 20395 Lullaby Rhythms—Norwegian, Japanese, Swedish, French, Italian, etc.

No. 35849 Indian Melodies.

Minimum Attainments for Division I.

- (a) Ability to sing correctly and pleasantly a minimum of thirty songs, ten of which, at least, including "God Save the King" and "O Canada", shall be memorized. Choice songs learned each year to be kept in repertory.
- (b) Ability of eighty per cent. of the pupils to sing individually, correctly *and with good vocal habits*, six to ten of the songs sung by the group as a whole.
- (c) With the exception of special cases, the monotone habit to be eliminated.
- (d) Ability to respond with free, graceful movements to the rhythmic elements in music heard.
- (e) Ability to listen with increasing enjoyment to music presented by phonograph, radio, voice or instrument, and the disposition to love the best of the music sung or heard.

- (f) Ability to recognize a fair amount of music that has been presented during the year (memory game); to know by sound and picture, the violin, the 'cello, trumpet, drums, bells.

DIVISION II

The teacher is advised to read "Introduction to the Course" and "Outline of Work for Division I".

In Division II emphasis is placed upon the work in Music Reading to follow the rote-work of Division I. The work done in Division I under Tune, Rhythm, Appreciation, will have provided the musical experiences and background which are not only desirable but are indispensable to successful work in Music Reading. "The thing before the sign" applies nowhere more forcibly than in teaching music. Some rote-work will be done in Division II, yet it must obviously be given a minor portion of the time available for music instruction, if music reading is to receive the attention that is necessary, in order that pupils may leave the elementary school having developed a love for music and with the broadest possible foundation in the knowledge and understanding of music. Pupils learn to read music for the same reason that they learn to read language. To know language one must be able to read it. To know music one must be able to read it.

In this Division, voice training and rhythmical work will be continued, as well as specific work in Music Appreciation.

Although the work is outlined by grades, it is understood that *the teacher of the one-room school will handle this work with the three grades combined*. In such cases facility in sight-singing may be acquired gradually and as readily as in graded schools, if *each* problem of tune or time is presented *in the sequence suggested and one at a time*, with opportunity for singing many attractive songs in which the particular problem occurs before a new one is presented. "Music material in which new difficulties are presented in too rapid succession is the greatest stumbling block to the music-reading process".

In graded schools where there is competent supervision, it is expected that music-reading will have begun in the last year of Division I; hence the work in Division II will be in advance of that outlined in this course by one grade, at least.

Suitable song books in the hands of pupils and a teacher's tuning-fork or chromatic pitch-pipe are indispensable items in the equipment necessary for successful and progressive sight-singing. Pupils will learn to read the language of music only through experience with well-graded attractive music literature; hence, with easy song books in the hands of pupils, and with an interested, enthusiastic teacher to guide them in their continued singing, a love for music and the desired foundation in the knowledge of music are aims that can be realized in music instruction in the elementary school.

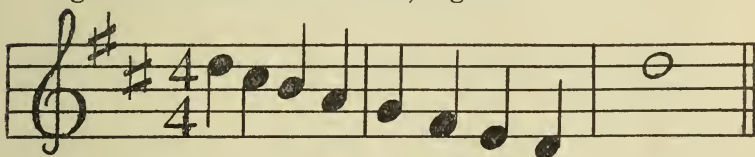
GRADE IV

(Read "Introduction to Division II".)

I. Tune.

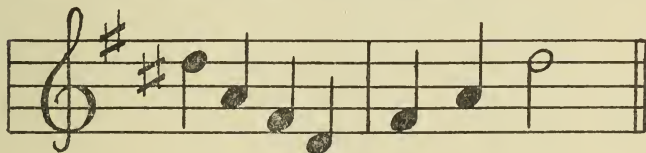
(a) *Voice-Training* (Tone Quality).—Special care must be exercised at this period for the preservation of beautiful, free, unforced tone. The growing self-assertiveness of the Grade IV boy, manifesting itself on the playground, finds reflection in the school-room in a tendency to press his singing-voice to the point of harshness. This is all too often accompanied by a disregard for the niceties of speech. The teacher must judiciously combat all such manifestations and pupils must be led to appreciate the lovely uses of pure, sweet tone in singing and in beautifully modulated speech conjoined with incisive enunciation and flowing diction. The teacher should feel herself responsible for counteracting all baneful out-of-school influences at work upon the child in these respects.

The most noticeable defects to receive attention are those of "Quality" and "Quantity". If the tone is forced and thick, "downward vocalization" is a suggested corrective exercise, e.g.:—



oo.....
 o.....
 ah.....
 moo.....
 mo.....

Repeat this exercise in the Key of E flat, E and F. *Always softly*, establishing the head voices on the top tone and preserving it throughout the whole scale. Also the following in the same keys:—



oo.....
 o.....
 ah.....

To reduce the "quantity" the larynx must be called upon to exercise its functions gently, as excessive quantity is directly responsible for stridency, shrillness and other undesirable qualities.

As a corrective exercise the "pianissimo hum" is suggested. Pupils humming easily, lightly and loosely

known songs or phrases of songs. (It is important that pupils be taught to hum correctly, as incorrect humming is most injurious.) (See Grade I outline under *Tune*.)

The light hum may be converted into singing with syllables "loo", "moo", "mo".

Let the class hear recorded examples of English choir-boys singing. Mendelssohn's "Hear My Prayer", including "O for the Wings of a Dove", sung by Master E. Clough, famous boy soloist, is especially recommended: Victor No. 35856; also "We Bow Our Heads" (Bach), for men and boys, Victor No. 130804. Such examples cannot but make a telling impression on pupils at this stage.

- (b) *Rote Songs*—at least one song a month. If possible, the notation should be in view. Folk songs of different lands are suggested as correlating with the work in Social Experiences. Occasional songs should be used in which the appeal is a little more directly to the boys.
- (c) *Music Reading* (involving *Tune* and *Time*).—Provided the work in "Preparation for Music Reading", outlined in the work of the final year of Division 1, has been satisfactorily done, sight-singing will begin in this Grade.

MATERIAL. Material should of necessity be simple:—prominent references to the tonic chord; two to four phrases in length (repetition of phrase evident), and containing only one, two, three and four-beat notes, quarter and half rests (the quarter-note sung to the beat); sufficient experience in one key before a new key is introduced.

PROCEDURE. There are *two* principal points involved in the process of fluent sight-singing:—

- (1) The Do tone must be well established; then the two chord forms, Do—Mi—So and Re—Fa—La should be sung by the class. The success of *sight-singing in relation to tune* will largely depend upon this.

In connection with the Observation Songs (chart songs), pupils will have memorized the rules for the relative location of Do, Mi, So, and Re, Fa, La. The following rules should now be learned as early as possible:—

- (a) When Do is on a line, Mi and So are on the next two lines, and high Do in the space past the next line.
- (b) When Do is in a space, Mi and So are in the next two spaces, and high Do on the line past the next space.

- (c) Re—Fa—La are in the spaces resting on the Do—Mi—So lines or on the lines resting on the Do—Mi—So spaces.

Theoretical explanation of the key signatures should not be given at this stage. The statement may be made that the sharps are there to tell us where Do is. The pitch (letter) names of the lines and spaces need not be given until later.

- (2) With this preparation the second principal point is to maintain a steady rhythmic procedure throughout the music to be sight-sung (rhythm including both tone-length and accent). Consciousness of the mis-application of a syllable should cause no hesitation in the forward stride of the rhythm. Such errors are not serious and should be taken in the same spirit of fun as would be the occasional and inevitable faulty steering when a child is learning to ride a bicycle. As action and rhythmic style improve, the "steering" will tend to correct itself in sight-singing as in bicycle riding.

The songs should be taken up phrasewise with a minimum of preparatory work. "Do not waste good 'singing time' by talking about the song".

The tonality should be well established by sounding the tonic (Do) and by having the class sing the two chord forms, Do—Mi—So and Re—Fa—La.

The *Time* (correct valuation of the notes) is kept right by having the pupils tap above the notes, finger sideways, singing the quarter note to one tap, the half note to two taps, etc. Pupils must be trained to *perform to the finger, not finger to the performance*. The *Rhythm* is kept right by grouping the notes into their thought-units, accenting the first note after the bar-line, taking breath *only* at the breathing marks (commas printed above the staff) and at the rests. Pupils should be discouraged from reading one note at a time. Absolute smoothness must prevail. This necessitates looking ahead constantly, the eye travelling ahead of the voice. "Eyes right" is a good motto in sight-singing.

Pupils should be trained not to stop when a mistake is made in tune. The teacher should keep track of the mistakes made in tune and note naming, afterwards conducting modulator and staff-exercise to strengthen the class in the particular pitches involved.

Until pupils have had a good deal of experience in the work, (1) sing the song by syllables, beating time; (2) sing with "loo"; (3) sing the words (keeping the eye on the notes).

Individual sight-singing should be encouraged from the beginning, as this will bring greater confidence in their work. Two standing at the same time,

proceed down the rows from back to front. Each sings a phrase. If correctly sung, class sings it as a mark of approval. If incorrect, the next pupil sings the same phrase. When a phrase is correct the next standing pupils sing the next phrase. At first the easier material should be reserved for individual sight-singing.

**SUGGESTIONS
FOR DRILL.**

- (1) *Mental Effects*:—Since the so-fa syllables provide names for relative (not absolute) pitches, it materially aids toward the judgment of intervals wider than a single step to now lead the children to recognize the peculiar characteristics of each tone of the scale in its relationship to the key note “Do”. Particularly easy of appreciation are the characteristics of the tones Do, So, Mi, Fa, Ti. “Do” is quite readily conceived as the strong, firm tone, the father of the family, exerting a governing influence over the whole scale. It must be ever-present in the mind in abstract tune-drills and in sight-singing practices. “So” in its relation to “Do” appeals as a clear, bright note; it is the bugle boy of the family, with its cheerful note, and may be nicknamed “Sunshiny ‘So’”. “Mi” is felt as the calm, gentle, peaceful tone; “Fa” as the serious, lonesome tone that likes to fall to “Mi”; “Ti” is the active, Johnny-jump-up of the scale that seeks to reach up to “Do”. Hand signs for all the tones have been devised, the purpose of which is to remind the pupils of the different characteristics. Exercises may be sung from the hand signs.
- (2) *Modulator*:—Tune drills may be conducted from a column of the note-names placed on the blackboard or on a chart. This arrangement is popularly called a Modulator. The “Ti” should be written closer to “Do” than to “La”; the “Fa” closer to “Mi” than to “So”; these lessened intervals representing the semitones. The note-names may be written in colours suitable to their mental effects, the usual scheme being (from Do to high Do), red, orange, blue, dark green, yellow, indigo, purple, red. Exercises pointed should be purposeful, not rambling, should not cover the whole range in any key, and should have good rhythm form. The single syllable “loo” or “laa” should occasionally be sung to the teacher’s pointing.
- (3) *Ear Training*:—
 - (a) What is the syllable name for the 1st, 2nd, 6th, last note in a phrase, sung to “loo” by the teacher?
 - (b) How many Do’s, So’s, Fa’s, Ti’s, etc., in a phrase “loo’d” by the teacher?
 - (c) Name all the notes (by syllables) in 3-tone groups “loo’d” by the teacher. The following are recommended for this: Do—Re—Mi; So—Mi—Do; Do—Mi—So; So—Fa—Mi; Do—Ti—Do; La—

Ti—Do; Mi—Fa—Mi; So—La—So; Mi—Re—Mi. Some of them should be cast in a rhythmical form, not always being notes of the same length. Individual answers are better than class answers. The children stand when they have an answer. The answer should be sung. Once a month this test should be written, the percentage of correct answers posted on the blackboard thus registering progress.

II. Rhythm.

Folk Dances:—To correlate with the work in Physical Training and in the Social Experiences, interesting work in simple Folk Dancing may supplant the rhythmic games of Division I.

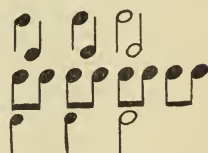
Rhythm Band:—In conjunction with rote-singing, different sections of band may be allocated to different phrases of the song. Old nursery jingles, such as "Hot Cross Buns", offer good opportunities, as a beginning, owing to their strong rhythmical character. The rhythmic pattern of the song should be written, line under line, on the blackboard, the instruments employed being specified by different colours;

Drums and Blocks Red Chalk

Drums and Blocks Red Chalk

Rhythm Sticks and Triangles Yellow Chalk

Drums and Tone Blocks Red Chalk



Appropriate use of other instruments to be made as work progresses. This practice may be extended by setting various rhythmical schemes in blank rhythm (without staff) on the blackboard for sectional playing. This is equivalent to playing from rhythm band scores in which parts by various instruments are indicated. Material of this kind may be secured from any of the publishing houses listed in bibliography.

III. Theory.

- (a) *Value Names of Notes:*—Teach only those in practice in the reading work of this Group; quarter, half, dotted half, whole. The quarter, half and whole rests.
- (b) *The Correct Placing of Stems:*—Above the 3rd line, down, left side; below the third line, up, right side; on the third line, either down or up. The correct placing of rests.
- (c) *Written:*—Copying easy songs. Easy written dictation exercises in which the pupils write the notes for a short group of tones sung by the teacher; the key signature is copied.

IV. Appreciation.

- (1) Review the work under topics as listed and described for Grade III, Division I.
- (2) *The Orchestra:*—So many people have radios now-a-days that to hear an orchestra play is a very common thing. But not many children have *seen* a large orchestra. A symphony orchestra is the finest to hear

and the most interesting to see because it has so many different kinds of instruments. This large family is made up of four family groups. In one group the sound is made by bowing across strings; in another by blowing into instruments made of wood; a third group made of brass, also played by blowing. These last two groups are called the wood-wind and brass-wind sections. In the fourth group the sound is made by striking and they are called the percussion group of instruments. So we see there are *three* ways of making the tone:—*bowing, blowing* and *striking*.

There are four families in the whole community of instruments: the String, Wood-wind, Brass-wind, and Percussion families. The string family has the most players but the least number of different kinds of instruments, while the percussion family has the least number of players but the largest number of different kinds of instruments to be played. This is because a player in the percussion section is required to change from one instrument to another quite often during the playing of a composition.

The teacher should show a diagram of the seating of the orchestra. Also illustration of the different orchestral "families". These can be procured in chart form from the Victor Phonograph Co. (Education Department), Montreal. Next, play any good orchestral record such as "Danse Macabre" (Saint-Saëns) No. 6505.

The instruments most noted for their solo capabilities should now be considered:

- (3) *The Flute*:—This is the soprano voice of the wood-wind section. It has a very pure, sweet tone, something like boys' and girls' voices when they are singing in their best style. But it can run up the scale much higher and faster than people can sing, and can trill even better than the most musical of the birds. Play "Elfin Dance" (Grieg) Record No. 20079; "Wind Amongst the Trees" No. 20344.
- (4) *The Clarinet*:—Also a soprano voice in the orchestra, but richer, fuller and more mellow than the flute. The flute is played by blowing through a hole in the side, but the clarinet is blown through a mouthpiece at the end of which there is fixed a "reed". The player must press his lower lip firmly and blow to make the reed vibrate. Play "Waltz" (Brahms) No. 20079, in which two clarinets are heard. Question the class on points of difference between flute and clarinet.
- (5) *Further Listening Lessons* for
 - (a) *Discrimination of Moods* evoked by the music. The teacher should relate short, improvised stories each portraying a different situation. After each story, play three or four short recordings (without naming them) exhibiting contrasting moods, the children choosing the selection most suitable to the mood of the story.

(b) *Correlation with Pictures and Poems:—*

“Hark, Hark, the Lark” (Schubert) 12083, from Shakespeare’s “Cymbaline”; (picture) “The Song of the Lark” by Breton (recommended in Art Appreciation); “Summer is a-Cumin In”; (picture) “Singing Boys with Book” by Luca Della Robbia; “Who is Sylvia?” (Schubert) 12082, from Shakespeare’s “Two Gentlemen from Verona”; “Winnie the Pooh”, songs 221, 222, 223 (Poems, A. A. Milne); “Morning Mood” (Grieg); (picture) “Spring Dance” (recommended in Art Appreciation).

With the picture, “The Child Handel” (Dicksee), may be associated “Largo”, No. 6648, and “Harmonious Blacksmith”, No. 1193 (the latter played on the harpsicord). Both by the composer Handel.

(c) *National Characteristics:—*Correlation with the Social Studies may be made by presenting examples of folk music of different nations:

Chinese Cradle Song (Jasmine Flower), No. 20395.
Dance of a Chinese Doll, No. 6616; Swiss Echo Song (Eckert), No. 6593.

Hawaiian Folk Song, No. 1115.

Impressions of London, No. 20629.

Four Indian Melodies, No. 21972.

Omaha Indian Games, No. 20164.

(d) *Quiet Listening:—*(Heads on hands, eyes closed). Suggest that they hum softly while listening. After the playing, some to be asked to hum part of the tune. Name of the composition then given. Use “Melody in F” (Rubinstein), No. 1178, and any of the records listed above that contain beautiful melodies.

See *Music Appreciation Lessons* (Mabel Rich), published by Victor Co. Also:

Träumerai (Schumann), 19854.

Spring Song (Mendelssohn), 1242.

Elfin Dance (Grieg), 20079.

Minuet (Boccherini), 10636.

Four Indian Melodies, 21972 (played on Indian flutes).

(e) *Descriptive Music:—*

The Toymaker’s Dream, No. 21975 (Xmas Story in Music).

Nutcracker Suite, No. 6615-17 (Tschaikovski).

The Hall of the Mountain King, No. 20245 (Grieg).

The Brooklet, No. 20313 (Schubert).

Impressions of London, No. 20629.

Overture to Midsummer Night’s Dream, No. 6675-76 (Mendelssohn).

(f) *Individual Composers:—*

Haydn:—Toy Symphony, No. 20215; Surprise Symphony, No. 7059.

Handel:—Joy to the World, No. 20246; Pastoral Symphony from The Messiah, No. 20620.

Also 6648 and 1193. See section (b) above.

Mozart:—Menuett; Gavotte; No. 20440; Cradle Song, No. 22160.

Boyhood life of one of these composers. (For Mozart see Reader, Grade IV.)

GRADE V

The teacher is advised to read "Introduction to the Course" and the outline of previous work in Division II.

I. Tune.

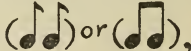
(a) *Voice-Training* (Tone Quality). See Grade IV.

(b) *Rote Songs*.—At least one song each month taught by rote. Where possible the notation should be exhibited. There should be an even representation of Folk and Art Songs with an occasional National Song. These songs may feature tune and rhythmic movements in advance of the class sight-singing ability, the foundation being laid in experience before formal study. The tone should be round, pure, flexible and capable of somewhat greater expansion and diminution in volume than heretofore.

Any song, whether prepared by rote or note, is only half learned when the notes and time are correct. Eloquent interpretation of the text, vitality of accent and rhythm, shapeliness of the phrases, realization of the climaxes, keen attacks, incisive enunciation, management of the degrees soft and loud—these all constitute the upper half of the study field in song preparation.

(c) *Music Reading* (involving *Tune* and *Time*).

MATERIAL. In the preceding year the material was kept comparatively simple in order that pupils might receive the necessary foundation in tone work and in reading pitch notation. In this grade the aim should be greater facility in tone work (ear training) and in reading pitch notation, together with reading the notation of more difficult rhythmic figures. The first of these to be introduced is the equally-divided beat, represented

by two eighth notes: , (the quarter note the beat unit).

PROCEDURE. Present a chart picture of a simple song containing this rhythmic figure. There should be but a very few examples of it in the song chosen, in order that contrast with the already familiar note values may be more easily impressed. The teacher should sing the

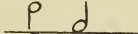
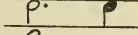
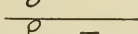
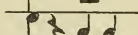
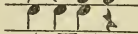
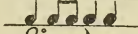
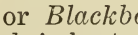
song (with syllables) from the chart, pointing above the notes as she sings. The pupils should then sing the song, pointing the pulses toward the chart as they sing. Attention is drawn to the new note-shapes. Pupils are led to see that both the eighth notes are sung to one tap, the first while the finger falls, the second while it rises. (On the books, touch between the notes, as picking up two cherries on one stem.) The name, eighth note, should be given, also the following rule: "When we meet a couple of eighth notes we sing the first to the touch, the second to the lift". Exercises from the staff may be devised for practice and many songs in which this figure occurs should be sung.

(For general procedure in conducting a sight-singing lesson, see Grade IV.) In addition the following suggestions may prove helpful:—

When a song is announced and the place in the book found, the pupils without a word of direction from the teacher, should hastily discover the *key*, the *position of Do*, the location of the Do chord (Do—Mi—So) and the Re chord (Re—Fa—La), then quietly stand in the aisle to show that they are ready to give the information. This information is given in the following manner:—Key, G; 2nd line; "Do" chord, middle three lines; "Re" chord, top three spaces. If not too high, have pupils sing the two chords, pointing to staff positions as they sing. This routine should be expeditious and quiet.

SUGGESTIONS FOR DRILL. Tapping the pulses over the notes is still an important process in this Grade.

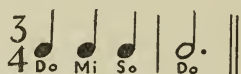
- (1) A *Time Chart*, such as the following, should prove a helpful device. Eight measure-patterns, containing various arrangements of the note and rest values now under study, are placed vertically on the blackboard, the class to sing each measure to each successive tone of the downward scale:—

Sung to high Do	
Sung to Ti	
Sung to La	
Sung to So	
Sung to Fa	
Sung to Mi	
Sung to Re	
Sung to Do	

- (2) *Modulator or Hand Signs or Blackboard Staff* to be used for tone drill. This work is best done by handling the tones in groups, familiarizing the pupils with a number of the most commonly used of these:—
 Do—Mi—So; Re—Fa—La; Do—Re—Mi;
 Do—Ti—Do; La—Ti—Do; Do—Mi—So—Do;

Do—Fa—La—Do. Class sings to the teacher's pointing, first, using the syllables; then the neutral syllable "loo", singing the group *after* seeing them pointed, or, in longer examples, singing each note as it is pointed.

- (3) *Flash Cards*.—The notes for various groups of tones are shown on "flash cards", each card being displayed for a moment, the pupils singing the syllables with their correct pitches.
- (4) *Ear-Training (Oral and Written Dictation)*.—The teacher *speaks* the syllable names of a group of tones—class responds in tune. This should be done to a definite rhythmical pattern, e.g.,



not consisting of tones of the same length. Pupils should be asked to make the hand-signs occasionally as they respond—both hands may be used. Teacher may dictate what is to be sung by means of hand-signs, pupils responding, using syllables or "loo".

The teacher sings a short, *rhythmical* group of tones (2 measures), using the neutral syllable "loo" or "la"; children stand when they are prepared to sing the group with so-fa names. A time-limit should be placed on this. The answer should always be given by an individual. The key should be changed frequently and the key feeling (pitch of Do) well established before an example is given.

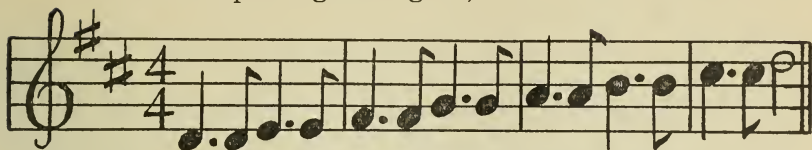
A written test should be required once a month, in which pupils write down in correct staff-positions (key signatures having been given) groups of tones sung by the teacher. Simple beginning to be made, gradually increasing in difficulty as the work progresses.

ADDITIONAL PROBLEM.

- (1) *The After-the-Beat* note which is found in the rhythmical figure of two unequal notes to two beats, as represented by (♩.♩), the quarter note the beat unit.

The same procedure to be followed here as in teaching the previous time problem. The Welsh song, "All Through the Night", will make a good choice for an Observation Song. Several songs may be used. Pupils will discover that the dotted quarter note is sung on two touches and the eighth note to the "lift" of the finger in the tapping process. This statement will then become a permanent time-rule for solving this problem whenever it is met in Reading Songs. The Time Chart may be extended to include this rhythmic figure. Time charts should show measure-forms in two-pulse and three-pulse as well as those in four-pulse.

Another interesting type of drill is the use of the scale in repeating the figure, as:—



- (2) *Songs in Six-eight Measure*:—This problem will be introduced only after pupils have had a good deal of reading experience involving the above rhythmic figures.

This will require the introduction of circular tapping—two beats in the measure, hence two circular taps to each measure. Pupils must learn to recognize the main “beat-forms”, i.e., note-groups to be included

in each tap: (♩♩♩); (♩♩); (♩); (♩♩), etc.

As in the case of previous problems, this new problem is introduced by means of a rote-song which has been printed on a chart or on the blackboard for observation, the new problem being carefully noted, isolated for drill, and then followed by the singing of many songs in six-eight measure.

A time-chart including the various measure patterns in six-eight time will prove a helpful device for practice work. Individual sight-singing, as in preceding year, to be continued.

II. Rhythm.

In addition to the drill work in *the notation of rhythm*, included under Music Reading, Folk Dancing is recommended for rhythmic work with pupils of this age. Correlation with Physical Training and with the Social Experiences will offer interesting suggestions.

III. Theory.

- The pitch (letter) names of the staff-lines and spaces, including one added line and space below and above.
- Naming the key from the position of “Do”.
- Naming the notes in songs read:
How many A-flats in the first phrase? Name the notes in the fourth measure. Write on blackboard staff, two different D’s; two different F-sharps. Write notes whose letter names spell familiar words.
- Review the significance of the two numbers in the time signature; the bar-line, as in signifying the place of strong accent; measure.
- Practice writing phrases, in blank rhythm, using different measure patterns:—

$$\frac{2}{4}, \frac{3}{4}, \frac{4}{4}, \frac{6}{8} \text{ pulse.}$$

IV. Appreciation.

1. *The Voices of the Orchestra.*

(a) *The Viola*.—We already know the sound of the violin and the 'cello. These are the outstanding members of the string family. Another very beautiful but modest string instrument is the viola. Its part is rather like that of the altos and sometimes like the tenors in a choir. The players are fewer than the second violins and are seated to the right of them. At first sight the violas look exactly like violins, but, if we examine more closely, we notice that they are somewhat larger. Though played like the violins, their tone is deeper. This is because of the larger size and the fact of the strings being tuned a fifth lower. The tone is tender and caressing, not so brilliant as that of the violin nor as powerful as the 'cello. It mixes beautifully with other instruments but is not often heard by itself. Show a picture of the viola (Victor charts). Play record No. 20174 "Lullaby" (Brahms); No. 20164 "Minuet" (Paderewski).

(b) *The Double Bass*.—Sometimes called the bass viol. It is like a very large violin, so big it has to be rested on the floor. Being about six feet high and taller than most players, it is played standing. It produces the lowest tones of the orchestra, the tone being heavy, often gruff, but very thrilling, like the pedal tones of the pipe organ. It can make one think of the distant rumbling of thunder. A great French composer has written a composition for the orchestra called "The Carnival of the Animals", in which he makes the double basses imitate the dancing antics of clumsy elephants. A splendid string ensemble record illustrating the double bass is, "O Vermeland, Thou Lovely" (Swedish folk-song), No. 19923.

(c) *The Oboe*.—A very important member of the wood-wind family. It is a little smaller than the clarinet and has a thinner tube. Unlike the clarinet, it is played by a *double* reed. The tone is thin, reedy, and penetrating; the effect sad, far away. The whole orchestra depends upon "A" sounded on the oboe for its tuning. Its tone is so different from all the other wood-wind instruments and of such peculiarly penetrating quality that not often more than two are found in a large orchestra. Show picture of the oboe and play record No. 20079, "Andantino", by Thomas (pronounced Tohmah).

2. *Descriptive Music vs. Pure Music*.—Music is often intended to tell us a story just as do novels, poems and pictures. Such music is called descriptive. We have

already heard a number of descriptive pieces on the phonograph. It is good fun to try to find the story in a piece of music and tell it to the rest of the class. Teacher plays "In a Monastery Garden" (Katelbey), No. 216501 (without giving title), and asks children to tell the story suggested to them. Such pieces are called tone-pictures. But there are many other lovely musical compositions that are simply what may be called "pure" music. "Andantino" may be played again as an example (20079); also "Moment Musical" (Schubert), No. 1143; "Adagio" (Bach), No. 6635.

3. *Major and Minor*.—This contrast can be very effectively impressed in the following manner:

Play on the piano a simple and well known hymn tune, for instance, "Blest Be the Tie That Binds" (key G). Then play it again, this time lowering by a semitone each 3rd and 6th degree of the scale. It is now in the minor key. When played first (major key) it was assuring, comforting, restful. The second playing (minor key) gave it a gloomy, almost wailing effect. The children may not be friendly to such treatment of a well known tune, but it serves the purpose of clearly illustrating the difference between major and minor effect. Develop these facts:—

- (a) There are two modes in music, major and minor.
- (b) The minor, while more often sad and gloomy, is sometimes bright with a tinge of seriousness; the major not always bright and gay. The saddest funeral march ever composed is in the major key—"Dead March from Saul" (Handel), No. 16980.
- (c) There are a great many beautiful minor melodies whose beauty would be lessened or lost if changed into the major mode.
- (d) Centuries ago most music was in the minor key.
Have the class sing the following songs in illustration of the minor mode. The accompaniments should be used for the sake of the harmonic background:
 - (a) "King Old Winter"—*Progressive Music Series*, Book 1, page 35. Sad, plaintive.
 - (b) "Lingering Leaves"—*Progressive Music Series*, Book 1, page 98. Sad, plaintive.
 - (c) "Snowflakes"—*Progressive Music Series*, Book 1, page 41. Light-hearted.
 - (d) "The Birds' Breakfast"—*Progressive Music Series*, Book 1, page 115. Record No. 20347.
 - (e) "See Saw Sacradown"—*Progressive Music Series*, Book 1, page 121.
 - (f) "Creep, Mouse, Creep"—*Progressive Music Series*, Book 1, page 124.
 - (g) "Our Friends, the Shadows"—*Progressive Music Series*, Book 1, Page 130. Minor with one major phrase.

- (h) "Miss Rainy Day"—*Progressive Music Series*, Book 1, page 151. Contrast of mode and mood. Beginning in minor, ending in major.
- (i) "The Three Kings"—*Progressive Music Series*, Book II, page 160.
- The boyhood life of one composer—Schubert, Brahms.

GRADE VI

Teacher is advised to read "Introduction to the Course" and to make herself familiar with the outline of work for the first two years of Division II.

I. Tune.

(a) *Tone Quality*.—It is to be expected that pupils in the final year of Division II should have acquired the ability to sing with a beautiful, free, unforced tone, demonstrating in all performances eloquent interpretation of the text, vitality of accent and rhythm, shapeliness of the phrases, keen attacks, realization of the climaxes, incisive enunciation, management of the degrees of soft and loud, all of which, as suggested previously in this course, constitute the upper half of the study field in song preparation.

(b) *Rote Songs*.—A number of the more beautiful songs learned in previous years should be reviewed and made to form a part of a cumulative repertory. These songs should not be allowed to wane but should be explored again and again for newer beauties. Folk Songs, Art Songs, National Songs, Songs for Special Days, Well-known Community Songs, should find a place in the pupil's repertory in this Division of the school. These, too, will offer interesting possibilities for correlation with the enterprise work.

Individual song-singing is still an important part of the training in this Division as in Division I. In schools where two-part work has been done in Music Reading, duet-singing is strongly recommended.

(c) *Music-Reading* (involving *Tune* and *Time*).

MATERIAL. The work outlined for this year is to be regarded as a continuation of the work done in the preceding year, the teacher picking up where the pupils have left off and providing for any necessary review before new work is introduced. It is to be expected that the problems studied in the preceding year will recur, again and again, in the reading material for this year, together with the new. In this way a gradual and steady growth in Music Reading is provided for.

MATERIAL. The work of the previous year stressed, particularly, various rhythmic problems. The new problems to be introduced in this grade are those relating to *Tune*—*chromatic tones*.

Chromatics are tones borrowed, for the moment, from other diatonic scales of other keys. Their introduction lends a new interest or variety ("colour") to a melody which may be compared to the two classes, sharp and flat. The most common of the sharp chromatics is the sharpened fourth degree of the scale, "Fa sharp", called "Fi", intermediate between "Fa" and "So". Its mental effect is of acuteness wishing to rise to "So". The figure So—Fi—So exemplifies the simplest progression of this sharp chromatic, which is easily recognized through its similarity in effect to Do—Ti—Do. It may be taught by making this comparison. At first "Fi" should be used only in its simplest progression. "Fi" is placed in the modulator slightly to the right between "Fa" and "So".

The most common of the flat chromatics is the flattened 7th degree of the scale, "Te", intermediate between "La" and "Ti". Its mental effect is of gravity, wishing to fall to "La". The figure *La—Te—La* exemplifies the simplest progression of a flat chromatic. In teaching it may be compared to *Mi—Fa—Mi*. "Te", as in the case of "Fi", should be used, at first only in its simplest progression. It is placed in the modulator slightly to the left and between "La" and "Ti".

(Note.—A *Modulator*, showing a two-octave range, may be drawn on a piece of cardboard, 2'8" long, 10" wide, which may be hung in any part of the room where the light is best. See the left margin.)

PROCEDURE. As with the rhythmic problems, perhaps the most interesting approach to the study of chromatics is through the Observation Song, teacher choosing different songs for study in which sharp or flat chromatics occur in their simplest progressions, particularly "Fi" and "Te". In this way the aural effect of the chromatic inflection is noted and the syllable names for these new tones are introduced. Then may follow the analysis, these tones being explained in relation to the regular tones of the scale and being placed in the modulator as illustrated on this page.

The notation of "Fi" and "Te" is made clear by memorizing the following rules:—

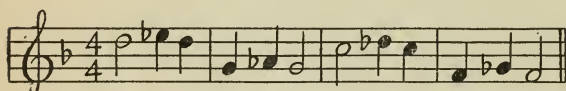
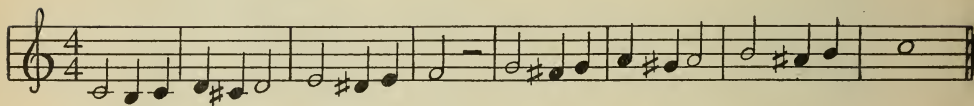
- (1) "Fi" is written on the same position on the staff as "Fa". It is distinguished from "Fa" by a *sharp*, when "Fa" is natural (see key signature); by a *natural*, when "Fa" is flat (see signature).
- (2) "Te" is written on the same position on the staff as "Ti". It is distinguished from "Ti" by a *flat*, when "Ti" is natural (see key signature); by a *natural* when "Ti" is sharp.

Pupils should have no difficulty in applying these rules to the other sharp and flat chromatic tones. Plenty of practice in singing these simple chromatic inflections

should be given. Using Do—Ti—Do as a prototype, sing it to the syllable “loo” or “laa” and explain that in some pieces of music these sounds may be called Do—Ti—Do; in others So—Fi—So or La—Si—La; Re—Di—Re or Mi—Ri—Mi. Class sings, applying these various syllable names. Similarly the inflection Mi—Fa—Mi may be considered as a prototype of a simple flat chromatic movement. Sing Mi—Fa—Mi to “laa” and explain that while in some pieces of music these sounds may be called Mi—Fa—Mi, in others the names may be La—Te—La, Re—Me—Re or So—Le—So. Class sings, applying these various syllables. Many simple melodies containing chromatics should be sung for reading practice.

**SUGGESTIONS
FOR DRILL.**

1. *Modulator* or *hand-signs* or *blackboard staff* to be used for tone drill or interval drill. The tone groups suggested in previous years to be extended. Pupils in this grade should gain more accuracy in making interesting excursions among the tones of the scale and take pride in the expedition with which these manoeuvres are made. Chromatics in simple progressions to be included in this drill. Syllables and “loo” to be used. Such blackboard exercises as the following, illustrating the various simple chromatic inflections are helpful for drill:—



2. *Flash Cards*.—These are a good device to familiarize pupils with the notation of the tune or time problems being studied. These cards may show one measure, two measures or occasionally a complete phrase of a melody. The card is shown and pupils sing with light musical tone, marking the pulse steadily (syllables or “loo”).
3. *Ear Training (Oral and Written Dictation)*.—The work suggested in preceding year to be continued. This work should be extended to include chromatics in simple progressions.

In written work pupils write on the staff in a given key (key and time signature shown on the blackboard) simple groups of tones sung with syllables and occasionally with “loo” by the teacher. The class should tap while the example is being sung and note the relative time values of the tones. One to two measures is suggested.

The before-the-beat note, found in the rhythmic type of "two unequal notes to one beat", as exemplified in the dotted eighth followed by a sixteenth note (the quarter note the beat unit). With the Observation Song method, the pupils are led to discover that the sixteenth note is sung on the upper half of the finger lift in the tapping process. It is felt to drop in lightly at the top of the lift. Because of its close connection with the note on the following beat, it is called the "before-the-beat" note. The time-rule for it is: "When we meet a dotted eighth followed by a sixteenth, we sing the sixteenth at the top of the lift". Exercises

should be given contrasting this rhythmic type () with the equally divided beat (). Flash cards are an excellent device to use in this connection, not only to drill on the two rhythmic figures separately but to contrast them as to appearance and to sound, and to show the pupils that () is smooth and flowing, while () is somewhat jerky.

Sing many simple songs in which this rhythmic figure occurs.

As much reading practice as possible to include all problems of tune and time that have been studied so far.

II. Rhythm.

As in previous years, to supplement the drill work in the notation of rhythm included under "Music-Reading", folk dancing is recommended for rhythmic training. A study of the Fairs and Festivals in Medieval England; Early Life in French Canada; in Colonial New England, as outlined in the Social Studies, offers many suggestions: Maypole dance; Minuet; Gavotte, Virginia Reel, Quadrille, Sir Roger de Coverley.

III. Theory.

1. Review theory covered in preceding years.
2. Memorize the key signatures of the nine common keys: Key of C; keys of G, D, A, E with sharps in the signature; practice placing the sharps in their correct sequence. The sentence, "*Father, Charles Goes Down And Ends Battle*" may help, the initial letters indicating the order of the sharps.

Keys of F, B-flat, E-flat, A-flat; practice placing the flats in their proper sequence. The sentence above, when read backwards, indicates to order of the flats.

3. *Marks of Expression*.—A few of the more commonly used ones to be learned.

- (a) Relating to rates of speed—*andante*, *moderato*, *allegro*, *ritardando*, *accelerando*, *a tempo*.
 - (b) Relating to degrees of intensity—*piano*, *pianissimo*, *mezzo piano*, *forte*, *crescendo*, *diminuendo*.
 - (c) Relating to sectional repetition: *Da Capo*, *Dal Segno*, repeat dots.
 - (d) The slur, tie, phrase line.
4. Explanation of the chromatic signs used in notation for the already familiar chromatic tones.

IV. Appreciation.

1. *Voices of the Orchestra.*

(a) Sometimes, through the whole body of orchestral tone, there is heard a very noble and dramatic voice exultantly piercing its way. It is likely the *trumpet*, the soprano voice of the brass choir. The trumpet is very present in grand climaxes and provides much of the inspiration in music of a military character. A noticeable feature of all brass instruments is the coiling of the tube. This is done so that the player may conveniently hold the instrument while playing. For, if the tubes were straightened out, they would, in some cases, extend sixteen or eighteen feet. The trumpet would be eight feet long were it not bent upon itself in a neat rectangular form. It has a narrow cylindrical tube differing in this regard from the familiar cornet which has a slightly conical tube. Also it is somewhat longer than the cornet and has a much nobler and more brilliant tone. How well the trumpets sound the "Call to Arms" at the beginning of Part Four of the Overture to *William Tell* (Rossini). Play the Record, No. 20607, Part IV. Show the picture (Victor charts). Another fine record illustrating the trumpet at the beginning and repeatedly throughout is the *Cortege* from "*Queen of Sheba*" (Gounod), No. 35763.

(b) Play Record No. 6677, *Nocturne* from "*Midsummer Night's Dream*" (Mendelssohn). This lovely melody is played by the *French horn*. This instrument, although made of brass, produces a tone not unlike one of the wood-winds. Its tone is mellow, sympathetic and blends genially with all other instruments. When solemn, mysterious effects are desired the composer often calls upon the French horns. It is easy to recognize by sight on account of its multiple coils, the total length of which is from twelve to sixteen feet—twice as long as the trumpet. When a thin, weird effect is required of the instrument the player obtains it by inserting his hand well into the bell of the horn. Listen to this effect in Grieg's "*In the Hall*

of the Mountain King", from the Peer Gynt Suite, Record No. 20245. There are usually four horns in the orchestra.

- (c) When we watch a brass band play as it marches up the street, one of the things that catch our eye is the group of instruments played by sliding part of the tube in and out. There is only one kind of instrument played this way; its name is the *trombone*. A good trombone player must have a very good ear, for the exactness of the pitch depends on how far forward or back he moves the "slide". This is an important instrument of the orchestra as well as of the band. It has a very majestic tone, suitable to the expression of solemnity and dignity. There is no other instrument that can be so powerful and yet capable of playing softly and expressively. In music for the orchestra the trombones are not used so often as most other instruments but are reserved for the really great moments. There are usually three seen in the symphony orchestra. Play the arrangement of "The First Nowel" (Christmas carol), No. 20174, to illustrate the noble quality of the trombone's tone. Play also "Pilgrims' Chorus" from Tannhäuser (Wagner), No. 9060.
- (d) The bass of the brass choir (family) of the orchestra is the *tuba* (pronounced too-ba). It is the double bass of the brass section and, of all wind instruments, the tuba has the deepest voice. Its tone is so deep and commanding that there is only one tuba in the orchestra. A splendid illustrative record is No. 20637, "Torchlight March" (Mayerbeer).
- (e) *The Percussion Family.—Drum Group.*—Because in this family the different instruments are played by striking them, they are sometimes called the "battery". In the drum group there are the kettle drums ("timpani"), bass drum, snare or side drum and tambourine. The most important of these are the *kettle drums*, being the only ones tuned to produce a definite pitch. There are two, the larger producing the low So of the scale and the smaller the Do. Often a third one is used, tuned to play the subdominant or Fa.

The kettle drum is a big copper kettle with a parchment (skin) stretched across the top. By tightening or loosening screws, placed around the edge, the required pitch is obtained. One sometimes sees the drummer hastily re-tuning his kettle drums in the middle of a performance. He knows that the music is going to change key and he must tune to the new Do, So and Fa well ahead of time. This means that he is required to

have a very sure ear for pitch in order to find these tones in a different key from that in which the Orchestra is playing. Play "Finlandia" (Sibelius), No. 9015.

The *bass drum* sounds the outstanding accents in loud music but the sound has no definite pitch. While the kettle drum has only a single head, the bass drum and snare drum have two. The upper head of the snare drum is played upon by two small-headed wooden sticks. Across the lower head are stretched several cat-gut strings (snares) producing a rattling effect, against the head. A familiar effect is the "roll", a good example of which is heard in "Spanish Caprice" (Rimsky-Korsakoff), Record No. 6603.

The *tambourine* is a small, shallow and single-headed drum held in one hand, struck with the other. Metal discs, fastened loosely around the hoop on which the parchment is stretched, produce a tinkling sound when the tambourine is shaken. Record No. 7293, "The Gypsy Dance", (Saint-Saëns). Show charts of the percussion instruments discussed here (Victor Instrumental charts).

2. Review the orchestral sections ("choirs" or "families"), and those instruments, so far considered, holding membership in each family.

String section—violin, viola, 'cello, double bass.

Wood-wind section—flute, oboe, clarinet.

Brass section—trumpet, French horn, trombone, tuba.

Percussion section—kettle drums, bass drums, snare drums, tambourine.

3. *Rhythm, Melody, Harmony*.—The children should be brought to see that all music rests upon these three fundamental elements. In the case of Harmony, if it is not always expressed, it is always implied. In some pieces of music these three elements seem present in equal proportions; we are not conscious of the preponderance of one element over another. In other music, however, the chief interest lies either in the melody, the rhythm or the harmony.

Melody Predominant—"Träumerei" (Schumann); "Melody in F" (Rubinstein); "Berceuse" from "Jocelyn" (Godard).

Harmony Predominant—"Prelude in C Minor" (Chopin); "Prelude in C Sharp Minor" (Rachmaninoff).

Rhythm Predominant—"Dixie" (American Folk-Song); "Bolero" (Ravel), Record Nos. 7251, 7252.

Equal Proportions—"Largo" from "Xerxes" (Handel), No. 6648.

- (a) Select a familiar national or folk song such as "The British Grenadiers" or "Dixie". Write, on a single line, the rhythmic notation of the melody of one of its phrases.
- (b) Directly below this write the melody alone, on the staff.
- (c) Again, directly below this, write the four-part harmony scheme.

The three elements, rhythm, melody and harmony, are thus brought severally into isolation. They incidentally show the three great historic stages of musical development.

4. *Memory Tunes*.—Beyond the possible exploratory limits of music offered through school songs, there exists an extensive and growing area of music, both vocal and instrumental, much of which lies easily within the range of the school child's ability to enjoy. Compositions of this order should be presented from time to time through their phonographic recordings or by actual playing, their names and composers noted, the music recognized when heard, and made a part of a cumulative memory repertory. Theodore Thomas, the great orchestral conductor, said: "*Popular music is familiar music*". *If, in the classroom, good music can be made familiar, it will, by the law of the survival of the fittest, ultimately supplant the cheap and vacuous which generally has gone by the name of popular music. The name, nationality and a few other facts concerning the composer should be associated with each selection played; the class required to make these notes in a book kept for the purpose.* Music memory of this kind may advantageously be made the basis of contest. Use pieces of the following character for this purpose:

"Minuet in C" (Beethoven); Sextet from "Lucia" (Donizetti); first movement of "Unfinished Symphony" (Schubert); "Barcarolle" from "Tales of Hoffman" (Offenbach); "Liebestraum" (Liszt); "Largo", from the New World Symphony (Ovorak); "Morning Mood" (Grieg); "Halleluiahs Chorus" (from Handel's "Messiah"); Handel's "Largo"; "Hark, Hark the Lark" (Schubert); Andante from Haydn's "Surprise Symphony"; "Spring Song" (Mendelssohn); as well as most of the selections treated throughout the course.

Numbers of these records can be had from the general Victor catalogue. The following records may prove useful to teachers for purposes of correlation:

- No. 4023—No, John (Old English); Barbara Allan (Old English).
 No. 20986—English Folk-Song.
 No. 20447, No. 20537—Folk Dances; Virginia Reel.
 No. 20638—Quadrille.
 No. 20440—Gavotte; Minuet.

Supplementary Work.

As suggested in the introduction, this course has been written with the limitations of the rural and the small-town teacher in mind. For this reason it has been considered advisable to limit the requirements in music reading in Division II to the reading of *simple, one-part music*, so that all teachers will make a special effort to provide this minimum training to all pupils in our elementary schools. If this desired foundation is laid, it is felt that pupils should enter the intermediate school sufficiently well prepared to explore, there, new fields of musical experience in two and three-part reading.

In schools where there are specially trained teachers and competent supervision, two-part singing will have begun in the second year of Division II or not later than the third year. The following suggestions are offered in relation to this work:

Rounds and Introductory Two-Part Singing:—

(a) Simple two-part rounds provide a pleasant and easily obtained effect of vocal harmonic combination. The class is divided into as many sections as there are parts to the round. Each section should be thoroughly practised in singing the tune before embarking on the round. A mark is always placed in the music to show the place at which the next succeeding section enters. All are directed to sing it through a certain number of times, or, it may be terminated at a cadential point where the voices are producing the harmony of the key-chord.

(b) Two-Part Dictation.—The teacher may dictate short two-part tune forms. For instance, one side to sing Do—Ti—Re—Do while the other sings Mi—Re—Fa—Mi. This movement is in thirds. Another such combination is—

So—La—So—Fa—Mi,
Mi—Fa—Mi—Re—Do.

Movements in 6ths are also good, as,

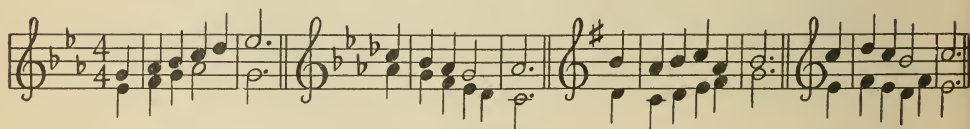
Mi—Re—Do—Ti—Do,
So—Fa—Mi—Re—Do.

Also in 3rds and 6ths, as,

So—La—Ti—Do,
Mi—Fa—Re—Mi.

(c) Two-Part Modulator Pointing.—This allows longer exercises than can be dictated and some contrary and oblique (one part holding while the other moves) motion can be experimented with as well as 3rds and 6ths.

Following this, a short two-part exercise should now be sung *from the staff*. First, present on the blackboard staff a central copy from which all the children will sing. The parts should move largely by 3rds and 6ths in the earlier examples, as follows:—

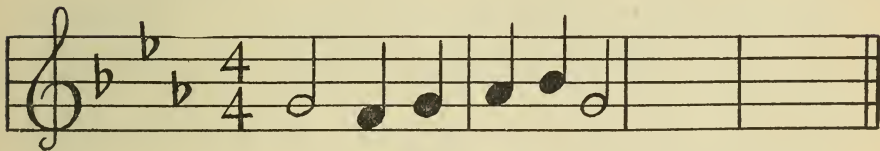


The class should be divided into two equal sections. At the command, "Take your parts", the sections sing their first note and sustain while the teacher counts a preparatory bar, the children tapping. At the command "Sing" (this command to be given one beat before the starting beat), the class sings smoothly through the whole exercise, maintaining strict time, regardless of any errors which may appear in the tune. After a correct singing, the parts should be exchanged and sung again. The parts should not be practiced separately unless a need is shown after several trials with parts together. The children should be encouraged to follow by ear and eye the movement of the opposition part while giving due care to their own part. As soon as possible, simple two-part studies exhibiting individuality in the parts should be given for reading.

Additional Work Should Also Include —

1. The singing of chromatics in more difficult progressions than suggested in this course.
2. Modulation (change of key within the song).
3. Some practice in the writing of original melodies in the second and third years of Division II. The process of trying to create music will give a more intelligent attitude toward the music created by others, since pupils will be led to observe the necessity of appropriateness of text to melody and rhythm. Simple beginnings may be made as follows:—

An individual pupil elected by the members of each row to offer an original completion of a tune, the first half of which is given on the blackboard. For instance:



The teacher discusses with the class the relative merits of the answers offered. Again, each child may copy the portion given and write his own answer; then sing the whole tune when called upon.

After this has been done a few times, pupils may be asked to write short melodies of one phrase, short poems being suggested for this purpose.

Minimum Attainments for Division II.

1. Ability to sing well, with enjoyment, at least twenty songs, some of which shall be memorized, these to include "God Save the King" and "O Canada".
2. Ability of seventy-five per cent. of the pupils to sing individually, freely and with correct vocal habits from six to ten of the songs sung by the class as a whole.

3. Power and skill to sing at sight, using syllables, simple unison songs, including a time or a tune problem recommended to be studied in these grades.
4. Ability of at least twenty per cent. of the group to sing individually, at sight, the material which the class can sing as a whole.
5. Elementary knowledge of notation: clefs, staves, key signatures, time signatures, measure signs, expression marks, etc.
6. Increased ability to respond with pleasure, dexterity and grace to musical rhythm.
7. Increased capacity to enjoy, and to observe, the characteristic features of music heard—mood and structure.
8. Ability to recognize and to name at least ten standard compositions which have become familiar through repeated hearings: to be able to tell the story of the boyhood of any one great composer.
9. A growing desire on the part of pupils to participate in, and to listen to worth-while music.

RECOMMENDED SONG BOOKS AND REFERENCE BOOKS FOR THE TEACHER'S USE

DIVISION I

ROTE SONG COLLECTIONS

(N.B.—All prices given in these lists are approximate.)

Progressive Music Series, Book I—School-Book Branch, Department of Education, Edmonton. (55c)

Murdoch's Song Books, Series A and B.

Thirty-six Songs for Children; Schaefer—C. C. Birchard & Co., 221 Columbus Ave., Boston. (60c)

Songs of the Northland—Gordon Thompson Music Co., Toronto. (35c)

Children's Songs (Nursery Rhymes); arranged by Johannes Brahms—Novello, New York.

ACTION SONGS

The teacher is advised to send for Curwen's special catalogue of *Action Songs*. Curwen Books Nos. 8501, 8502, 8503 and 8504 are recommended. (Each 70c)

Music Plays, Action Songs, Recitations—Fischer, 114 West 40th St., New York. (\$2.00)

The Sun Bonnet, and *The Chinese Umbrella*—Fischer, 114 West 40th St., New York.

Haymakers and Dairymaids—Eldridge Entertainment House, Franklin, Ohio. (35c)

Kingsway Book of Action Songs; Kingsway Series—Evans Bros., Montague House, Russell Square, London, England. (65c)

SIGHT SINGING

(With special reference to city and town schools.)

- 777 Graded Exercises in Sight Singing for Schools*, Book I; Eagleson—Institute of Applied Art, Edmonton. (25c)
The Singing Period, Book I—Waterloo Music Co., Waterloo, Ontario. (25c)

MUSIC APPRECIATION

- Music Appreciation for Children*—Victor Phonograph Co., Montreal. (\$1.25)
Listening Lessons in Music; Fryberger—Silver Burdett Co., 221 Columbus Ave., Boston. (\$1.25)
Vicrola in Rural Schools—Victor Phonograph Co. (Free)
The Graphonola in the School-Room—Columbia Graphonola Co. (Free)

RHYTHM BAND

- The Toy Symphony Orchestra*; Vandermere—C. C. Birchard Co., address above. (50c)
Waterloo Rhythm Band Book—Waterloo Music Co., address above. (\$1.00)
Rhythmic Ensemble Band Books for Children—Schirmer, New York. (a) *Folk Tune Book* (\$2.75); (b) *The Schubert Book* (\$2.75). Each book has the conductor's score, piano accompaniment, and one copy of each part.

TEACHERS' REFERENCE BOOKS—GENERAL

- Progressive Music Series, Teachers' Manual*, Vol. I—Silver Burdett Co.; address above (\$1.80). Contains extra songs, and accompaniment for the songs in Book I.
School Music Hand-book; Cundiff & Dykema—C. C. Birchard Co.; address above. (\$2.00)
Music in the Junior School; McKenzie—Dent & Sons, Toronto. (\$1.00)
Music in Rural Education—Silver Burdett Co.; address above. (\$1.35)
Universal School Music Series—Hinds, Eldridge Co., Chicago.
Teachers' Manual, 777 Graded Exercises in Sight Singing for Schools—Institute of Applied Art, Edmonton.
The Music Hour Series, Books I to V—Silver Burdett Co.; address above. (68c, 76c, 68c, 84c, 88c)

DIVISION II

Add the following to the list for Division I:

- Progressive Music Series*, Book II—School-Book Branch, Department of Education, Edmonton. (60c)

Pictures in Song, Book I (Piano Edition)—Bayley and Ferguson, 54 Queen St., Glasgow, Scotland.
Churchill-Grindell Song Books, I-VII — Churchill-Grindell, Plattsville, Wis. (Each 60c)
Any of these are suitable.

MUSIC APPRECIATION

Add the following to the list for Division I:

What We Hear in Music; Faulkner—Victor Gramophone Co. (\$2.00)
Music Appreciation, Taught by Means of the Gramophone; Stone—Scott-Foresman Co., Chicago. (75c)
My Book—Nos. One, Two, and Three—Silver Burdett; address above. (Each 25c)
A Magic Orchestra Concert for Orchestra Land; Mabel Rich—C. C. Birchard Co.; address above. (25c)

RHYTHM BAND

See the list for Division I.

SUPPLEMENTARY BOOKS FOR CHILDREN'S READING

Story of Great Musicians; Rowbotham—Stokes & Co. (\$2.25).
The Guide to Music; Mason—H. W. Gray & Co., New York.
Königskinder; Chapin. (\$1.75)
In Music Land; Upton—McLurg.
Music Talks with Children; Tapper—Theodore Presser Co., Philadelphia. (\$1.25)
First Studies in Musical Biography; Tapper—Presser. (\$1.50)
Music Stories for Girls and Boys; Cross—Ginn & Co.
Pictured Lives of Great Musicians; Crawford—Birchard. (\$2.25)
Magic Music—Wallace Publishing Co., Des Moines.
Alice in Orchestrallia; Ernest La Prade—Doubleday, Doran & Co., New York. (\$1.75)

Enterprises

DIVISION I: SOCIAL ACTIVITIES

It cannot be too strongly emphasized that the activities and enterprises listed are merely suggestive, and not in any way compulsory. The activities engaged in should grow out of the interests of the pupils. They will inevitably be conditioned by their abilities and resources. Using the following lists and samples as guides, the teacher should invent and work out interesting activities possible in the school's particular environment. *It is suggested that five or six enterprises form a year's work in Division I*; but no definite statement can be made since the work undertaken depends upon the school, the children, and the teacher.

Each enterprise should be analyzed by the teacher to discover the possibilities for learning situations which it presents. In every instance there will be materials connected with literature, music and health, science, language and social behaviour. Sometimes the emphasis will be more particularly on one phase of culture, knowledge or behaviour, than on another. As the enterprises for the year's work are arranged, *the teacher will endeavour to present a sufficiently balanced group of teaching material*. At the end of the primary period the children's experience in these cultures and behaviours should have been greatly extended.

The time given to the preparation for these activities will differ because of the variety or the extent of the content and the number of "learnings" found therein. Also, the children's interest in the procedure will be a governing factor, for the realization or actual fulfilment of their schemes must come sooner in some instances than in others.

The procedure in the enterprises suggested will have four definite stages in the teacher's scheme of organization. It will be realized that there must be a strong motivation to carry the project to a satisfactory conclusion. Therefore, the time given to the first step, the *motivation*, will be well spent. It is during this period of three or four days that free discussion will take place regarding possibilities of accomplishment, and the necessary things to be made, learned, or planned, will be discovered. With the *prospect* in view, though yet rather vague, the preparations are begun. This period of preparation is the period for learning citizenship, and the application of this learning is found in the pupil's *realization* of the prospect, which is the *culmination* of the enterprise.

N.B.—A fuller explanation of the enterprise procedure will be found in the section entitled, "Social Experiences", for Division II.

I.—THREE ENTERPRISES WORKED OUT IN DETAIL

ENTERPRISE I: HOW THE WORLD GETS READY FOR WINTER.

Time of year:

October and November.

Length of time:

Four or five weeks.

Motivation:

An autumn picture or story.

Prospect:

Planning and putting into effect an "Autumn Programme", in a room which shows children's work illustrating preparations for winter by nature, animals and human beings.

Preparation:

Problem I.—How the outside world prepares for winter.

Problem II.—How animals prepare for winter.

Problem III.—How man prepares for winter.

PROBLEM I: NATURE'S PREPARATIONS

Discussions and free conversations about the following topics:

(1) the turning of the leaves; (2) the appearance of trees; (3) the grass turning brown; (4) the cloudy skies; (5) the later rising and earlier setting of the sun; (6) the hardening of the soil; (7) seeds; (8) what changes the colour of the leaves; (9) of what use are fallen leaves; etc.

(See Science outline for Division I.)

Activities:

1. Collecting pictures of outdoor scenes in autumn from magazines.
2. Learning suitable songs, verses.
3. Choosing from the collection of pictures the one best liked by each child, and planning a little composition of two or three sentences about it. (Juniors give sentences orally; seniors in oral and written form.)
4. Free Art.—Making with coloured chalk or with tempera paint on large pieces of newsprint or paper a picture of a grain-field, the grain in stooks, etc.
5. Modelling of leaves in coloured plasticine, and of trees with bare branches.
6. Silent Reading exercises; as making a picture of a summer sky and of an autumn sky; printing "summer" and "autumn" on the right picture.
7. Freehand cutting of leaf shapes; colouring these yellow, red, etc.
8. Pressing, mounting, labelling coloured leaves.
9. Conversations about snow—its formation and its use.

PROBLEM II: THE ANIMALS' PREPARATIONS

Discussions and free conversations about the following topics:

(1) heavier coats of animals; (2) changing colour of rabbits, etc.; animals preparing to hibernate, e.g., gophers; (4) how the bear makes his lair; (5) squirrels gathering and

storing nuts; (6) migration of birds; (7) actions of such animals as toads, snakes, etc.

(See Science Outline for Division I.)

Activities:

1. Making a squirrel's storehouse, e.g., from cartons or orange boxes covered with brown paper.
2. Making the nuts from plasticine (juniors).
3. Making a bear's lair on the sand-table.
4. Making gopher's hole on the sand-table.
5. From a large pile of animal pictures, those of animals which hibernate may be chosen by the children.
6. Making riddles about animals.
7. Giving little oral compositions (juniors and seniors).
8. Making written compositions (seniors).
9. Memorizing poems: "Whisky Frisky" (*Poetry Book*, I), "Furry Bear" (Milne), "Now We Are Six", etc.
10. Listening to stories: "Gray Squirrel's Cupboard", "Hollow Tree Store", "Life of a Toad" (Troxell and Dunn).
11. Dramatizations of squirrels gathering nuts, bears crawling into lairs, etc.
12. Silent Reading exercises; as, multiple choice tests:
In the winter the squirrel is (hungry), (sleepy);
In the winter the bear (sleeps), (roams).
13. Stories on the enterprises written for the school paper or for the booklet.
14. Original verses made by an individual or by the group.
Example of a group rhyme made in one school-room:
"Growly! Growly!
Gr-r! Gr-r!", said the bear;
"I'm making my lair.
So you'd better take care
In the spring".

PROBLEM III

Discussions and free conversations about the following topics:

- (1) what the farmer does; (2) what Father does; (3) what Mother does; (4) what the storekeeper does; (5) wool; (6) coal.

Informal lessons taught about "wool" and "coal".

Activities:

1. A committee of girls may dress a doll for winter. The clothing—dress, underwear, cap—may be knitted by the committee in school, and the scarf and muff crocheted.
2. All the girls in the class dress one of their dolls in her winter (woollen) clothes, and bring her to school to appear in the Doll Group in the exhibition, at the end of the enterprise.
3. A store showing woollen clothing for sale may be made by the Store Committee (clothing is dolls').
4. Children may buy and sell, using toy money, which they make from cardboard, milk bottle tops, etc.

5. A page of advertisements of woollen clothing, blankets, etc., may be made for the newspaper by the "Advertising Committee", to show how the storekeeper gets ready for winter. Pictures may be cut from papers, mail-order catalogues, and pasted on a large sheet of newsprint, with prices.
6. Dramatizations of Father ordering coal by telephoning, banking up house, putting on storm windows and doors; of Father and boys raking up leaves, putting them on the garden, etc.; of the farmer cutting the grain, stooking it, threshing, etc.; of Father getting in the vegetables; of Mother sewing, making winter clothes, shopping, etc.
7. Jelly may be made, and fruit canned by a committee of girls. (The jelly and fruit may be used afterwards for school lunches.)
8. A committee of boys may make a fruit cupboard from a small box, and paint it.
9. Memorization of suitable poems; as, "Fairies in Autumn", by Rose Fyleman (The Fairy Green).

All work done by seniors may be kept in envelopes. A booklet may be made with cover suitably decorated, and this work put into it.

Juniors may make scrap-books in which they paste their work—cut-outs, paper tearing and folding, matching exercises, colouring, etc.

Culmination:

1. Discussions about the form it should take; guests; inviting guests; receiving guests; choosing of children to act as chairman, hostess, helpers, etc.; material for programme; the arrangement of room.
2. Practising courtesies; little speeches; songs and verse-speaking.

The Programme (Suggested):

1. The Chairman's address.
2. Verse speaking: "Fairies in Autumn" (seniors).
- (3) Dramatizations:
 - (a) How the Birds, Squirrels and Bears Get Ready for Winter.
 - (b) The Coming of the Coal Man.
4. Little speeches about the work done.
5. Song: "Little Jack Frost".
6. Verse speaking: "Furry Bear" (by the whole group).
7. Song and chorus: "Come Little Leaves" (whole group).

Outcomes:

(a) Attitudes and Appreciations.

1. Co-operation from working harmoniously with other members of the group.
2. Responsibility for contribution to the group.
3. Satisfaction in completing tasks successfully.
4. Resourcefulness in use of materials and in planning work.

5. Appreciation of (i) work of others; (ii) rhythm in music and verse; (iii) beauties in art and nature; (iv) creative expression.

(b) *Skills and Abilities.*

1. Increase in ability to use spoken and written language correctly.
2. Increase in ability to write carefully.
3. Increase in ability to read with greater comprehension.
4. Increase in ability to manipulate tools and materials.
5. Increase in ability to observe and make simple judgments.

(c) *Habits.*

1. Growth in habits of courteous social behaviour.
2. Growth in habits of success in manipulating tools and material.
3. Growth in habits of neatness and order.
4. Growth in habits of thinking scientifically according to ability.

ENTERPRISE II: WE PLAY HOUSE.

Aim:

To lead the children to realize the dependence of each household upon the workers of the community.

Length of Time:

Four or five weeks, as needed.

Motivation:

A discussion of the play activities of the pupils; showing pictures of children at play; reading of the poem "Doorbells" (100 Best Poems for Children).

Prospect:

A play written by the pupils and produced in about six weeks' time.

Preparations:

Problem I.—Planning the play.

Problem II.—Learning about the different workers: (a) the carpenter; (b) the farmer; (c) the mailman; (d) the doctor; (e) the storekeeper; (f) the radio announcer.

(Choose others if the children wish.)

Problem III.—The Play: gathering scenes, choosing characters and practising parts.

Problem IV.—The Scrap-book: completing and covering a scrap-book.

PROBLEM I: PLANNING THE PLAY

1. Discuss workers with whom pupils are familiar, and decide on ones to be used in the play; e.g., carpenter, farmer, mailman, storekeeper, garage-man, doctor, radio announcer.
2. Appoint committees for work on each occupation.
3. Plan scrap-book for filing pictures, stories, poems, etc. This activity will occupy the full time of the enterprise.

PROBLEM II: THE WORKERS

(a) *The carpenter.*

Discussions concerning (1) children's experience with building; (2) the carpenter's tools; (3) the carpenter's work.

Lessons: (1) where lumber comes from; (2) inch, foot, yard.

Activities: (1) illustrating tools, activities; (2) modelling some tools; (3) collecting pictures; (4) telling of experiences with building; (5) reading stories; (6) making simple costumes and properties; (7) making riddles about tools; (8) making little verses; (9) preparing scene of play; (10) writing of play (seniors); (11) learning suitable action songs (See *Physical Training*—Neilson and Van Hagen).

Since the activities for each worker are much the same, they will not be listed again.

(b) *The farmer.*

Discussions concerning: (1) the farmer's work; (2) what we get from the farmer (a) for food, (b) for clothing.

Lessons: (1) information gathered about food: grains, flour, bread and porridge, meat, milk, butter, eggs, cheese; clothing: wool, hides; (2) concerning foods for health.

Additional activities for this problem: (1) making reports on information gained; (2) making porridge; (3) making butter; (4) making bread or muffins. (These are to be used *only* if convenient.) (5) Dramatizing "The Nice Brown Bun" (Book II); memorizing "Come Buy My Nice Muffins" (*Poems for the Children's Hour*), or "Bread and Milk for Breakfast" (*Sing-Song*, Christina Rossetti); (7) learning a singing game, "Oats and Beans and Barley" (*Old English and American Games for School and Playground*).

(c) *The mail-man.*

Discussions about: (1) experiences with mail-man; (2) his duties; (3) the post office; (4) how the mail comes to the post office.

Lessons: (1) stamps; (2) letter-writing.

Additional activities for this problem: (1) learning a song, "The Postman" (*Songs of the Child World*); (2) learning a poem, "The Postman", Rose Fyleman (*Pathways to Reading*, Book II). (These may be omitted in schools where children have only the experience of rural mail delivery.)

(d) *The doctor.*

Discussions about (1) experiences with a doctor; (2) the doctor's work; (3) his great responsibility.

Lessons: some health lessons regarding the treatment of people in illness, or care of oneself to prevent illness.

Activities for this problem: (1) appreciating a picture, "The Doctor"; (2) writing a note to ask a doctor to call at the school; (3) reading the poem, "The Dormouse and the Doctor", A. A. Milne (*When We Were Very Young*); (4) playing a little rhyme, "The Doctor", Wilson (*Ring-a-Ring*); (5) telephoning for the doctor.

(e) *The Store-keeper.*

Discussions about (1) experiences with a store-keeper; (2) the store-keeper's work; (3) where he gets his articles for sale.

Lessons: information concerning the store-keeper's supplies, read by the children from books, or given in story form by the teacher.

Activities for this problem: (1) setting up a small store; (2) making and labelling articles for sale; (3) dramatizing the buying and selling of articles; (4) learning a poem, "General Store", Rachel Field (100 Best Poems).

(f) *The Radio-announcer.*

Discussions about (1) experiences with the radio; (2) favourite programmes; (3) the announcer's work.

Lessons: informal lessons about the radio and broadcasting.

Activities for this problem: (1) making small play radio and microphone; (2) learning songs and verses to be given over the radio; (3) planning short speeches, weather announcements, news of the day; (4) writing to a radio-station to request favourite song; (5) writing a note to thank the announcer for complying with the request.

The Culmination:

1. The production of the play.
2. The exhibition of the scrap-book.
3. The exhibition of art work, drawing and modelling.

The pupils from the other division of the school may be guests. Invitations will be given and courtesies extended to them.

Outcomes:

Attitudes:

1. Appreciation of the dependence of the child upon the workers of the community.
2. Respect for the different kinds of workers that contribute to the child's welfare.
3. Appreciation of the interdependence of people.
4. Friendliness towards people.
5. A realization of how the child himself can contribute to a better community.

Habits:

1. Working with a clear, definite purpose.
2. Planning an undertaking before attempting to carry it out.

3. Concentrating on the work in hand and persisting until it is accomplished.
4. Rendering services for the comfort and pleasure of others.
5. Courtesy in speech and action.
6. Working and playing harmoniously with others.
7. The ability to follow helpfully and to lead sympathetically.

Skills:

1. Writing and addressing letters.
2. Organizing material in a scrap-book.
3. Experience in play-writing as a vehicle of expression.
4. Practice in speaking well.
5. Story-writing.
6. Drawing, modelling, singing.
7. Experience in the use of reading material in the content field.

ENTERPRISE III: WE VISIT JAPAN.

Length of Time:

Six or seven weeks.

Motivation:

A story: "The Japanese Twins" (Lucy Fitch Perkins).

Poems: "A Japanese Home" (Canadian Readers, Book 3); "The Rickshaw Man".

Prospect:

Planning a "Japanese Tea Party", which will be carried out in Japanese setting as far as possible. Making a collection for the museum of things "made in Japan".

Preparations:

Problem I.—How to get to Japan.

Problem II.—What we shall see in Japan: (1) the countryside; (2) the people—(a) costumes, (b) homes, (c) food, (d) recreations—games. Girls' Festival, March 3; Boys' Festival, May 5.

PROBLEM I: HOW WE GET TO JAPAN

Discussions about (1) how to travel by land; (2) how to travel by sea; (3) experiences of travel.

Lessons:

1. Directions.
2. Information about trains, and the people who assist us to travel comfortably on trains.
3. Information about ships and crew.
4. Informal lessons in science about mountains, valleys, rivers, tunnels.
5. Informal lesson about Vancouver as a port.

Activities:

1. Collecting pictures of ships and trains.
2. Learning new words for oral and written speech.
3. Dramatizing scenes at ticket office, on a ship, etc.
4. Making weather charts for the ship's log.
5. Playing games suitable for ship-board.

6. Writing notes for a diary: "Our Trip to Japan".

PROBLEM II: WHAT WE SEE IN JAPAN

- A. *The country-side*: "Land of the Rising Sun".

Discussions about (1) islands; (2) mountains; (3) the sacred mountain, Fujiyama; (4) beautiful trees; (5) blossoms, cherry, chrysanthemum, wisteria.

Lessons:

Informal comparisons drawn from pictures of Japan.

Activities:

1. Collecting pictures (National Geographic).
2. Discussion of pictures to note comparisons.
3. Learning words for speech and writing.
4. Having a spelling match, using new words met in the enterprise.
5. Writing sentences and paragraphs for a diary.
6. Reading stories: "Kites and Kimonos" (Macmillan), "Japanese Fairy Tales", or simple stories made by the teacher.
7. Reporting on material found.
8. Drawing pictures of mountains.
9. Drawing pictures of cherry blossoms.
10. Drawing the flag of Japan.

- B. *The People*:

- (a) *Costumes*: (1) kimonos—materials for kimonos; (2) sandals; (3) fans for ladies; (4) parasols; (5) hats.

Lessons:

1. Silk.
2. Cotton.
3. Suitability of clothing for climate.

Activities:

1. Collecting pictures.
2. Senior girls may make kimonos for themselves or for their dolls. (Juniors may draw and colour.)
3. Read about silk and cotton.
4. Seeing cocoons, if possible.
5. Writing reports on information gained.
6. Making sandals out of cardboard or wood.
7. Drawing and colouring fans and parasols.
8. Making cutouts of fans and parasols and decorating them suitably.
9. Making hats of soft cardboard.

- (b) *Homes*:

Discussions about (1) materials for construction; (2) furniture; (3) decorations of home; (4) "Honourable Sanctuary"; (5) worship of beauty.

Activities:

1. Making a small house of cardboard.
2. Learning about the cleanliness of the Japanese.
3. Drawing a picture for the "Honourable Sanctuary". (A small committee may do this.)
4. Modelling of rickshaws to show a new method of transportation.

5. Learning a poem: "The Rickshaw Man".
6. Reading stories from "Umé San in Japan" (Little Brown); "Kites and Kimonos" (Macmillan).
7. Making mats of newspaper covered with brown paper, and decorating them suitably.
8. Seniors making riddles for juniors to read and guess.
9. Doing silent reading; e.g., exercises suitable to group.

(c) *Food:*

Discussions about (1) types of food; (2) habits of eating; (3) politeness in treatment of guests.

Lessons:

1. Information about rice and tea plantations.
2. Information about methods of catching fish.

Activities:

1. Reading about rice and tea plantations.
2. Making reports.
3. Making chopsticks.
4. Making a collection of recipes for things made of rice.
5. Making a rice pudding for the school lunch.
6. Making sentences and paragraphs for booklet.
7. Dramatizing a tea party.
8. Reading: "What Is the Matter with Mary Jane?"—A. A. Milne (When We Were Very Young).

(d) *Recreation:*

Discussions of pictures.

Lessons:

1. Information about the festivals.
2. How to play games.

Activities:

1. Making kites.
2. Playing games.
3. Reading stories about the festivals from "Kites and Kimonos"; "Peeps at Many Lands", by Finnemore (Black); "Umé San in Japan".
4. Telling about the festivals.
5. Writing short paragraphs.
6. Learning songs: "Little Children in Japan"; "I Have Come from Far Japan".
7. Learning a poem: "A Japanese Lullaby" (Field).
8. Making and dressing dolls for a festival.
9. Making a paper fish to catch the wind.
10. Learning action songs; e.g., "Chrysanthemum Land"; "Gay Little Girls from Japan"; "The Japanese Fan" (Messrs. Curwen & Sons).

The Culmination.—Our Japanese Tea Party:

Discussions about (1) whom we shall invite; (2) how invitations will be given; (3) how our room will be arranged; (4) how we shall greet our guests; (5) our preparations beforehand.

Activities:

1. Writing notes.
2. Giving verbal invitations.

3. Collecting and arranging curios.
4. Making paper flowers.
5. Arranging the room, especially the "Honourable Sanctuary".
6. Making tea.
7. Practice in greeting and serving guests.
8. Practising the entertainment; e.g., saying verses; singing; describing the decorations.
9. Clearing away when guests have gone.

Outcomes:

Attitudes and Appreciations:

1. Friendliness towards people of other countries.
2. Appreciation of their customs of cleanliness and politeness.
3. Appreciation of their love of beauty.
4. Appreciation of simplicity of decoration.
5. Co-operation in committee work.
6. Appreciation of borrowed articles and of the necessity for care of them.
7. Development of promptness in returning borrowed articles.
8. Appreciation of help given to us by others.

Skills and Abilities:

1. Increase in ability to use words orally and to spell words.
2. Increase in ability to read with comprehension; to use sentences when speaking; to manipulate materials; to arrange things artistically; to note pleasing colours; to make use of simple materials in one's work.

Habits:

1. Careful planning.
2. Neatness in work.
3. Using material on hand effectively.
4. Courteous speech.
5. Working harmoniously with others.
6. Concentration on task till it is finished.

REFERENCE BOOKS ON JAPAN

Learning About Japan, Debenham—Edinburgh House Press.

Boys and Girls of Japan and China—The Highway Press.

Mitsie, A Little Girl of Japan—Edinburgh House Press.

Taro, A Little Boy of Japan—Edinburgh House Press.

The Rickshaw Man (a poem), *Primary Education*, May, 1926.

Little Children in Japan (a song), *Primary Education*, May, 1936.

II: ENTERPRISES IN OUTLINE

From the following list of enterprises in outline, the teacher may select any that are suited to the local conditions of the school, to the number required for a balanced teaching

programme. Those selected should be expanded in the manner exemplified in the three preceding enterprises. It is not likely that the teacher will find time to attempt more than six enterprises in all.

1. A HARVEST FESTIVAL.

Suggested activities: collecting, mounting and labelling seeds, flowers, fruits, vegetables; drawing various plant, fruit and flower forms; discussing contributions of sun, rain, heat, wind to the growth of grains, plants and vegetables; learning suitable verses, songs, singing games; discussing the importance of grains, fruits and vegetables for health; discussing methods of preserving for future use; making flower or fruit or vegetable booklets; discussing work of farmer at harvest time; reading suitable stories; arranging a display of work and planning a short harvest programme of music, stories and poems.

Desirable learnings: some knowledge of the contribution of sun, rain, heat, etc., to the growth of plant life; some appreciation of nature's contribution to our well-being in respect to foods; growth of language power in making and saying verses and short speeches; growth of skill in reading, writing; growth of ability to sing pleasantly, and to appreciate rhythm and pictures in songs and poems; growth of discrimination in choosing colours for art work; development of co-operative spirit from working in groups.

A suggested culmination: a display of the fruits of harvest, with an accompanying programme of suitable music and verse.

2. OUR NURSERY RHYME FRIENDS VISIT US.

Suggested activities: learning to say and to sing nursery rhymes; drawing pictures of the various characters and scenes; learning to read certain suitable rhymes; dramatizing rhymes by pantomime and speech; making suitable little costumes for the plays; printing names of characters in plays; making and illustrating a nursery rhyme booklet.

Desirable learnings: appreciation of rhythm, pictures and fun of rhymes; growth in poise and self-control through dramatization; growth of skill in reading, printing, creative drawing, and of ability to speak correctly; growth in appreciation of another's work, and of a contribution to the group; growth in a helpful attitude towards each other.

A suggested culmination: a programme of songs, dramatization, and verse speaking.

(This enterprise is suitable when the majority of children are in the junior group of Division I.)

3. OUR STORY FRIENDS VISIT US.

Suggested activities: discovering, reporting and

reading interesting stories; selecting those suitable for plays, for illustration (as in a moving picture), or for individual telling; learning choral parts as in cumulative tales; illustrating incidents, and practice in telling about the incidents represented; planning and rehearsing dramatization; making suitable simple costumes.

Desirable learnings: growth in appreciation of the story, and of characters and plots; growth in vocabulary and in ability to tell stories; growth in ability to plan, discriminate, and organize; growth in self-control through dramatization; growth in the spirit of co-operation.

Suggested culmination: a group of plays; or a "Parade of Favourite Story People".

(This enterprise is suitable when the majority of children are in the senior group of Division I.)

4. *MAKING A ROBERT LOUIS STEVENSON BOOKLET.*

Suggested activities: reading and memorizing poems for verse speaking; learning music of poems; illustrating poems; reading stories from books about the poet or stories which the teacher has made from material about his life.

Desirable learnings: appreciation of happiness and courage in adversity; sympathy for those who are ill; appreciation of the pictures and rhythm of poems; ability to make reports on material read; increase in ability to use media for creative expression in illustrations; growth in ability to speak pleasantly; to copy material correctly.

Suggested culmination: an exhibition of the completed book, explained to another group of children.

(This enterprise is suitable when the majority of class is in the senior group of Division I.)

5. *OUR SCHOOL FAIR.*

Suggested activities: discussing the nature of the fair; making, drawing, modelling material for exhibition; criticizing and selecting good material; planning and selecting material for a programme; choosing judges; writing notes requesting services and thanking for services; practice in making little speeches and reports, and in singing songs, playing singing games, and saying verses for the programme; arranging material selected for the fair; sending out notices and invitations; practising politeness to guests.

Desirable learnings: habits of courtesy; development of ability to make good judgments, and to plan and organize; growth in ability to speak correctly, to draw more accurately, to sing pleasantly; appreciation of each other's work and of contribution of each pupil; growth in responsibility and in co-operation.

Suggested culmination: "The Fair".

6. *WE GO TRAVELLING.*

Suggested activities: collecting pictures of various modes of travel; telling experiences of travel; making models of conveyances; collecting and reading stories about travelling; playing bus, street-car, train; finding out about people who help us to travel, e.g., engineer, conductor, bus-driver, aviator, etc.; making booklets of travel with accompanying labels, or group stories; learning suitable rhymes and songs; learning how food is prepared, kept clean and sanitary on the train, how to keep healthy when travelling—care in the use of water, disposal of garbage, etc.; protection against fire when making camp.

Desirable learnings: some knowledge of directions and of simple geography of one's surroundings; some general information about travel; increased ability to read, to speak, and to write; appreciation of people's work involved in travelling; increased ability to handle materials for construction; attitude of co-operation and good citizenship toward keeping trains and camps clean and sanitary, of friendliness and helpfulness towards fellow-travellers.

Suggested culmination: the exhibition of vehicles for travel, with dramatization.

7. *THE BIRTHDAY PARTY.*

Suggested activities: discussing possibilities and plans; making little gifts; practising courtesies to guests; planning suitable food; practising table manners; choosing and practising songs, games, for the entertainment at the party; reading stories; writing or telephoning invitations; carrying out activities of a real party, e.g., arranging room, food, entertainment, receiving guests, etc.

Desirable learnings: development of habits of courtesy to guests, and of polite table manners; development of resourcefulness and ingenuity in planning interesting entertainment; attitude of consideration for others; increase in ability to write, to read; development of responsibility in carrying out plans.

Suggested culmination: "Our Birthday Party."

8. *WE VISIT THE FARM.*

Suggested activities: discussing interesting features of farm life; observing habits of animals, discussing their usefulness to man and man's consequent care of them; making farm buildings; drawing or modelling animals; making booklets of animals, of farm activities; reading stories, playing games, learning rhymes, poems and songs about animals; practising writing invitations to visit to friends; practising courtesies to guests; choosing interesting material to present to guests for their entertainment.

Desirable learnings: some knowledge of the usefulness of animals to man; appreciation of the farmer's work; some knowledge of the farm as a source of supply for food and clothing; growing ease in social behaviour; growth in ability to use polite forms of speech; growth in skill subjects; appreciation of stories and poems about animals and activities of the farm; appreciation of the possible beauties of country life.

Suggested culmination: a radio broadcast: "Life on the Farm".

9. *THE CIRCUS PARADE.*

Suggested activities: collecting pictures, stories and rhymes about the wild animals of the world; making booklets; drawing pictures; making rhymes, riddles and stories to describe the animals; discovering usefulness of certain animals; finding out how these animals are caught or raised (e.g., lion farms); discussing the circus; making a circus (tents, cages for animals); practising physical stunts for clown; making posters to announce the circus; making tickets; planning a room for the circus, a gate where tickets are sold, the tents, the cages; reading stories about children's experiences at a circus; how circus animals are cared for—kept clean, carefully fed and exercised, etc.

Desirable learnings: some knowledge of animal life of the world and its contribution to man; increased ability to do creative work in drawing or language; increased skill in dealing with numbers, in reading, in constructive work, and in printing and writing; proper care of animals. (For children who have not had the experience of going to a circus, the enterprise may be named "We Make a Zoo", and modifications in activities will be made accordingly.)

Suggested culmination: "The Circus Parade". (Selling tickets, exhibition of animals, stunts of clowns.)

10. *HOW WE GET OUR FOOD.*

Suggested activities: collecting pictures of various kinds of food; learning about values of different kinds of food; making booklets, using children's drawings and rhymes or sentences as content; visiting stores where food is sold; finding out about sources of food—farms and gardens near, and farms and plantations at a distance; finding out how food is brought to us from different places; learning how food is preserved in the home and elsewhere; learning simple hygienic rules about care of food; planting a small garden at school or at home; learning about nature's part in the growth of vegetables, fruits and grains, and making reports on observations; making food charts, or planning good menus; keeping store; making and reading stories,

rhymes and poems; preparing some food for use in room; practising polite table manners; learning to make the noon-lunch hour as pleasant as possible.

Desirable learnings: some knowledge of food values, of care and sources of food; an improvement in the school lunch, in food brought, in the lunch-hour arrangements; some appreciation of work involved in production and preparation of food; learning habits of politeness; some knowledge of plant growth; growth in skills of reading, spelling and writing; some appreciation of the interdependence of people; growth in ability to express ideas; growth in spirit of co-operation in planning and carrying out work.

Suggested culmination: "Our Food Booklet" (with drawings and short stories).

11. *A SPRING PAGEANT.*

Suggested activities: observing changes of weather and making a weather chart; watching for first green grass, first flower, first bird, and reporting such observations; reading charts made about observations; planting seeds of various kinds and observing their growth; learning about contribution of sun and water to growth of plant life; gathering twigs and pussy-willows and observing development in water; reading stories about springtime; learning and saying verses about the spring; making rhymes; writing little stories on observations; talking about spring activities in house cleaning, making of gardens, etc.; dramatizing activities; making booklets with accompanying rhymes or sentences; making a bird sanctuary; making bird houses; making an aquarium; keeping well in the spring—proper clothing for keeping pupils warm and dry; prevention and care of colds; importance of fresh, green foods to our health; more opportunities for outdoor games.

Desirable learnings: growing appreciation of the beauties of nature; appreciation of picture and rhythm in nature poems; growth in creative expression, reading, spelling and writing; growth in ability to observe carefully, to look after one's health.

Suggested culmination: "A Spring Pageant", showing return of birds, flowers, etc., with accompanying songs, verses and little singing games.

12. *THE CHILDREN'S MUSEUM.*

Suggested activities: collecting various objects of interest; making reports telling where and how these were obtained; finding out about interesting places from which the things came; making a suitable place for their display; labelling objects; discussing plans for opening of museum; writing notes of invitation; learning to receive guests; planning a programme of

songs, speeches, dances and reports; writing the programme; practising the necessary activities.

Desirable learnings: growth of interest in things of nature and unique things; growth of discrimination in collecting material; growth in ability to plan carefully and in responsibility for carrying plans through successfully; growth in desirable habits of social behaviour, e.g., courteous invitations, greetings of guests, introducing people to each other, and in responsibility of entertaining guests.

Suggested culmination: "The Opening of the Museum" (to guests or other children, with a little ceremony for the occasion).

13. *WE GO SHOPPING.*

Suggested activities: discussing various articles to be bought in stores; visiting a shop, if possible; setting up a store in the classroom; making the various articles for sale; collecting pictures of articles to sell; labelling articles for sale; dramatizing shopping situations; finding out where various articles are made, and how they are brought to us; making reading charts and discovering suitable stories in books; how food is kept clean in the stores—keeping certain foods cold, e.g., milk, butter.

Desirable learnings: appreciation of the stores in the community; habits of courtesy of store-keeper and of shopper; some knowledge of needs of the family, and of necessity for budgeting; growing appreciation of father's and mother's care of the children; some knowledge of numbers in connection with money; growing ability to plan carefully and to assume responsibility in group.

Suggested culmination: "Our School Bazaar".

14. *HOW OUR HOUSES ARE MADE.*

Suggested activities: collecting pictures of various kinds of houses; discussing materials needed for houses; visiting a house that is being built; discovering the work of different people in its construction; discovering where some of the materials came from; discussing use of homes for shelter and happiness; care of the home; dramatizing the work of the carpenter, the painter, etc.; making a little house of very simple materials; dramatizing the family moving into it; playing little singing games about the carpenter and other workers.

Desirable learnings: some knowledge of occupations of the community and appreciation of the workers in the community; general information about everyday living; growth of responsibility and creative power in planning and executing dramatic representation.

Suggested culmination: "Our House Warming".

15. WHERE OUR CLOTHES COME FROM.

Suggested activities: collecting and mounting pictures of various kinds of clothes—men's, women's, children's; discussing needs for various types of clothing and sources of clothing; discovering the various people needed in the preparation of clothing; reading little stories about making wool, gathering cotton, tanning leather; dramatizing such situations as shopping for a winter coat, a pair of rubbers; knitting simple scarves; mending stockings; simple weaving; doing simple dyeing of cloth; making booklets, illustrating them, and writing little stories, such as "The Story of a Shoe", "The Story of a Button"; reading information material of a simple nature; care of cloth—preventing wool from shrinking, taking out spots, etc.; planning a good wardrobe for various persons.

Desirable learnings: general information about people's needs for clothing, the services and the work involved in procuring clothing; some ability to do simple handicrafts; learning how to care for clothes; appreciation of each other's work in illustrating, etc.; growth of skill in reading, writing and spelling; habits of behaviour when shopping.

Suggested culmination: a booklet on clothing.

16. TAKING GOOD CARE OF OURSELVES.

Suggested activities: collecting pictures and discussing suitable kinds of food; making food booklets; learning care of food; disposal of garbage; discussing suitable clothing for changing weather; making a book of health rules; discussing care of hands, eyes, hair, etc.; dramatizing a tea-party, using suitable food; getting ready for school; reading stories; making health rhymes; discussing care of homes and schools for health; dramatizing "first-aid" to care for a bruise or a burn; discussing and making stories about health; making simple drawings to illustrate booklets; discussing help given by parents, doctors, dentists, etc.

Desirable learnings: growth in ability to take care of one's self; development of right attitudes towards proper food, proper clothing, and personal hygiene; development of right attitudes towards others in co-operation and thoughtfulness; development of language skill in reporting stories; skill in reading, spelling and writing.

Suggested culmination: a meeting of "Our Good Health Club".

III: SUGGESTED TOPICS FOR ENTERPRISES

Instead of selecting enterprises from the foregoing list, the teacher may prefer to develop enterprises from some of the following suggested topics.

HOLIDAY ENTERPRISES

1. OUR HALLOWE'EN PARTY.
2. OUR THANKSGIVING SERVICE.
3. OUR ARMISTICE DAY PROGRAMME.
4. OUR ST. VALENTINE'S BOX.
5. OUR PEACE DAY PROGRAMME (for May 18th).
6. OUR CHRISTMAS CONCERT.

It is advisable that the Christmas concert, which is one of the important enterprises of the year, should grow out of school work. Thus, the practising of music, verse speaking and plays, will be carried on during school hours; for these activities are a legitimate part of the school life, having a satisfying culmination in the concert itself.

HOW OTHER CHILDREN LIVE

7. WE VISIT HOLLAND.
Suggested culmination: a moving picture "Life in Holland".
8. WE GO TO ESKIMO LAND.
Suggested culmination: an exhibition of "Eskimo Land" on the table.
9. WE VISIT KANDA IN THE CONGO.
Suggested culmination: a dramatization of life in Kanda's village.
10. CHILDREN OF OTHER LANDS.
Suggested culmination: a pageant of children, with a programme.
11. LONG AGO WITH THE INDIANS.
Suggested culmination: a frieze of Indian life.

Suggested Activities for the Foregoing Enterprises:

Collecting and discussing pictures of the country; mounting these pictures carefully; making booklets; finding and reading stories in books; reading stories of the teacher's making; reading charts of the pupils' own making; drawing, modelling or constructing characteristic objects of the country; making a sand-table representation; learning available rhymes and poems about the country; reporting on stories read; planning dramatization of situations, such as "Market-Day in Holland", "The Smoking of the Pipe of Peace"; learning of customs of the country, habits of getting food, clothing, etc.

Desirable Learnings:

Growth in appreciation for people of other countries; development of tolerance towards customs of other groups very different from ours; growth of skills in reading, writing, construction, in speech; growth in habits of courtesy, of co-operation, and of responsibility.

IV. THE ATTITUDES AND APPRECIATIONS, HABITS, SKILLS AND ABILITIES THAT ARE EXPECTED TO BE THE MAIN OUTCOME OF THE ENTERPRISES

Attitudes and Appreciations:

Social Attitudes:

1. Co-operation: this will be the keynote of the whole course and will include all the most important citizenship habits.
2. Responsibility (*a*) for one's own work; (*b*) for one's part in the group activity.
3. Appreciation of people: parents; community helpers, such as policemen, firemen, milkmen, postmen or mail-drivers, ferrymen, or other prominent people (and people and children in other lands).
4. Appreciation of one's own country, and the attitude of helpfulness for the good of all; at the same time simple appreciation of other countries.
5. Concern for the welfare of others (the altruistic attitude).

Scientific Attitudes:

1. Judging, weighing and evaluating after observation; particularly in preparing for a culmination.
2. Attempts to think clearly, and to express observations and judgments clearly.
3. Respect for truth, and for the means by which it is found.
4. Tolerance for the opinions of others.
5. Curiosity—questioning and finding the answers to questions.

Aesthetic Attitudes:

These result from an appreciation of music, art and nature.

In this division, children should learn to appreciate rhythm—in games, music, art and literature. They should also appreciate the beauty of nature.

Creative expression will come as the result of aesthetic attitudes and appreciations.

Skills:

1. In the use of the spoken and written language. Every activity will have many opportunities for the development of this ability.
2. Spelling (not formal, but as needed).
3. Handwriting.
4. The mechanics of reading.

Abilities:

1. To see relationships.
2. To observe and to make simple judgments from observations.
3. To manipulate all the tools and materials at one's dis-

posal. N.B.—Here will be included the ability to use simple reference material relating to the activities.

Habits:

1. All the social habits or behaviours necessary in one's environment.
2. All the essential health habits.
3. Habits of neatness and order in the care of one's person, one's surroundings, tools and materials.
4. The habit of thinking scientifically according to one's ability.

DIVISION II: SOCIAL EXPERIENCES

INTRODUCTION

The Aims:

1. To educate, that is, to develop the boys and girls in body, mind and character, by providing them with experiences in line with their interests, which are "attracted more and more by definite objects, by particular occupations, by specific branches of knowledge and problems of activity increasingly restricted and refined".
2. To train pupils in collecting, selecting and organizing information, and in the application of organized information to the solution of specific problems of activity.
3. To help pupils to acquire as much useful knowledge as possible in the school subjects: history, geography, science, health, literature, music, and art.

The means should consist chiefly of activities. These activities should be of such a nature as to cultivate the natural disposition of the pupils to express their ideas by speech, free art, dramatization, construction, writing and movement. Their activities should be as life-like as possible, so that the learnings acquired through them will be integrated and unified.

The Organization of the Division.

For the purpose of the course in Social Experiences, Division II (Grades IV, V, VI) should form one group.

The Organization of the Programme.

Admitting that boys and girls really learn chiefly by doing things, one is brought face to face with the question as to what they shall be required to do. Obviously their "work-doings" in school should be more pointed and fruitful than their "play-doings" outside of school. It is, indeed, the chief function of the school to provide for its pupils a series of "work-doings" which will secure for them a maximum of useful learnings within a minimum of time.

The "doings" of adult life, both social and economic, are basically concerned with the production and consumption of goods; that is, with the manipulation of environment. School-children cannot manipulate their environment, but they can make preliminary investigations of it, and experiment with it. The traditional purpose of teaching history, geography and

nature study has, indeed, been to familiarize the pupil with his environment. We may, therefore, safely choose as our general subject of study: "How Man Lives in the World". Our "doings" in school may profitably deal with any phase of this broad subject.

How does man live in the world? He lives in a variety of ways: nomadically, in a settled home, in isolation, in semi-isolation, in rural communities, in small groups, in large groups. These conditions vitally affect him in his manipulations of his environment, his fight for shelter, food and clothing against climate, the earth and the forces of nature. This unending battle has given rise to his traditions and racial customs, which, in turn, influence his methods of making use of the spoil.

The Enterprise.

The name "enterprise" has been chosen to designate the "doing or activity", rather than the familiar "project", because it has a somewhat stricter meaning. An enterprise is a definite undertaking; teacher and pupils agree upon it and tacitly promise to carry it through as agreed. An enterprise is an undertaking chosen, after consideration, for its interest and value; carefully planned in advance, carried out according to plan, and brought to a definite conclusion, after which some reckoning of gains is made. An enterprise is not only a carefully organized undertaking in itself, but it is also a part of a whole, a definite step in a course designed to cover three years of work. Each enterprise involves planning, the organization of ideas and of materials, and co-operation. Enterprises include both mental and manual work, the collection of information and the practice of skills. A well chosen enterprise—

Is centred in the interests of the pupils.

Is within the range of their ability.

Suggests several kinds of information to be sought.

Offers several kinds of work to be done.

Provides different types of social experience.

Is capable of being completed within a reasonable length of time.

Analysis of an Enterprise:

Analysed for writing out in outline, the enterprise is found to have several parts:

The Title should suggest the activity; e.g., "The Cave Dwellers: An Exhibit".

The Theme is a sentence which should state the type, or phase, of life being studied, connecting the particular enterprise with the general subject of study; e.g., "How Man Lived in Pre-Historic Times".

The Motivation: Suggestions for introducing the subject of the enterprise and relating it to the lives of the pupils; e.g., "Story of the Alberta Dinosaurs"; "A Visit to the Cascades at Banff".

The Prospect: Group discussions of the possibilities of the enterprise: of what can be done by the group; the culmination desired; the means of reaching it; the materials available to work with.

The Preparations.—It is in this part that the real work is done, and the real learnings are accomplished. The preparations will inevitably resolve themselves into a series of problems to be solved by means of the following:

Group discussions;

Group search for information and material;

Writing letters about material;

Reading and reporting upon what has been read;

Formal lessons from the teacher;

Collections of pictures;

Construction of models;

The preparation of speeches, dramatizations, choral recitations, individual recitations, folk-dances, etc.

The Culmination is the final disposing of the work done. It should be planned from the beginning, prepared for largely by the group, and *carried out with as little help from the teacher as possible*. The standard of work demanded should be as high as the conditions permit, but teachers, remembering that the work is being done by children, should not therefore, expect an adult standard.

The Outcomes should be thought out carefully by the teacher, and their worth should be well considered before the enterprise is undertaken. When it is completed, some attempt to sum up the pupil's gains should be made. Outcomes will be of four types:

(a) *Attitudes and Appreciations**: Admiration for honesty, courage, skill; interest in the past; understanding of the problems of people in other countries. The attitudes and appreciations of individual pupils, as well as those of the group should be observed and recorded by the teacher.

(b) *Abilities and Traits of Character*: Self-reliance, judgment, ability to co-operate with others, friendliness, helpfulness, sympathy, tolerance of another's point of view. These are properly tested only by noting the pupil's reaction to the situations he meets day after day. Test situations may, if desired, be arranged by the teacher.

(c) *Skills*: Silent reading, oral reading, writing, language, number. These should be tested at regular intervals (three or four times a year) by standard, or informal tests.

(d) *Knowledge* relating to history, geography, science, health. These are probably best tested in Division II by the objective test.

Enterprises Suggested for 1936-37:

The six enterprises suggested below constitute a full year's work in the course in Social Experiences for Division II. Three of these enterprises, the first, third and fifth on the list, have been worked out in full by teachers experienced in

*See list given in connection with the enterprises suggested for Division I.

the enterprise technique, for the guidance of those teachers who have not had the opportunity of taking any special training in Enterprise Education. Such teachers should not be worried about the new procedure. Most of them will have prepared and presented a Christmas concert. A Christmas concert in which the pupils do the planning, choosing of selections, organizing, arranging and carrying through under the guidance of the teacher is an enterprise.

All teachers are urged to undertake at least two of the enterprises suggested below during the school year 1936-37. To those who feel a little diffident, it is suggested that they begin with the second one, "How Christmas Came to Canterbury", working it out as simply as desired and using it as the Christmas concert for this year. Having made a success of that, both teachers and pupils will be eager to try one of the three large ones suggested.

Enterprises:

1. Water and Life: An Exhibit.
2. How Christmas Came to Canterbury: A Pageant, or play.
3. The Sun Worshippers: A Frieze, or a Group of Murals.
4. In Search of the Western Sea: An Animated Map.
5. Forest and Stream: A Moving Picture.
6. Here Comes Summer: An Outdoor Fete.

WATER AND LIFE: AN EXHIBIT

(Outlined in full by Jessie Mackinnon and A. L. Doucette.)

Theme:

Water is necessary to all forms of life.

Time:

Six to eight weeks.

Motivation:

A discussion of one, or more, of the following topics:

1. Radio broadcast of the Moose River disaster in Nova Scotia, stressing the fact that the entombed men lived for ten days on water alone.
2. Commonplace needs in the day-to-day lives of the children in work and play.
3. The prevalence of water: (1) in the air-ocean above us; (2) in the great water-oceans a long way from us; (3) in the earth beneath us; (4) in our own bodies.
4. Man's constant dependence on water; his total helplessness without it. Life (plant, animal and human) would cease if water were taken away from us. There is no life on the moon because there is no water there; there is no life in some of our ice and sand deserts.

The Prospect:

In class discussions, develop the following suggestions as to work to be done:

1. To prepare an exhibit of models, pictures, etc., conspicuously labelled, and showing man's uses of water in (1) his immediate environment; (2) in more remote environments. The exhibit on these two major topics should be divided into sub-sections to show the main problems studied.

2. To explain and describe to classmates and interested persons in the community the articles made, the problems studied, and the meaning of the final job.
3. Invitation of the interested persons listed in (2) to the exhibit. Consideration might be given to a programme.

Preparatory Jobs.—The Assembly of Materials:

1. A class discussion of what the exhibit is to contain; what topics shall be taken up; what materials we shall need to work with; what pictures to look for. (The study of the various problems should consist of an extension of the immediate locality to adjacent regions, and finally, to distant lands.)
2. Making folders: Small manilla tag folders (12"×18") to contain pictures and articles on the various problems; one large folder (14"×22") to hold the five small folders.
3. Making tags which will, later, be used as labels with the names of the articles in the exhibit printed upon them.
4. Writing for reference materials. (See list at the end of the enterprise.)
5. Examining the school and home libraries to find out what reading materials are available.
6. Collecting materials to work with: scrap and waste or worn-out materials found around home; work table and storing cupboard; hammer; saw; nails; brads; old boxes for wood; knife; scissors; old tin; wool; cotton; yarn; sawdust; twigs; leaves; old cardboard; old cartons; salt; flour; old glass; string; varnish; paint; stones; sand; rock; funnel; sealers and aquarium; manilla tag.

Problem I: Water and Our Health.

Introductory discussion.—Water is ever close at hand; it is connected with our immediate livelihood; it is intimately associated with the lives of boys and girls.

A preliminary thought problem.—"A Day with Friend Water". Tabulate headings to show how you saw water used during a whole day. Keep thinking of it all day so that you won't miss any. Include ways in which you used water yourself and also ways that you saw water used by others for your final benefit.

USED BY ME					USED BY OTHERS FOR ME			
Times I Drank	Times I Washed	Teeth Brushing	Watering Plants	Etc.	Washing Clothes	Cooking	Stock Watering	Etc.

Studies to Make—Choose One*:

1. *Water as food for our bodies.*—People lost in woods or

*Where several studies, or jobs, are suggested, teacher and pupils should choose one or more than one, according to the number of pupils in the group. In a rural school where there are only three or four pupils in the group, choose only one study and two or three jobs to go with it. In a town or city grade, divide the class into five or six groups, or committees, and assign one study and one or more jobs to each group.

deserts can subsist on fresh water for some time. Refer to our motivation, and show that water as food is merely a "tiding-over" until food is available. People adrift in lifeboats or open boats could make use of the salt water around them if some means of boiling and condensing the steam were at hand. The drinking of salt water increases thirst.

2. *Water as an agent of elimination.*—The excretory system; importance for health. Discuss amount of water we should drink daily.
3. *Drinking water.*—Qualities of drinking water: clear, sparkling, cool, no unseen germs, palatable; sources: springs—why safe; surface or shallow wells—why dangerous; deep wells—explain the filter system to clarify water (though filters do not remove germs); artesian wells—why they spout, why they are pure, where found; rivers—use for drinking; consideration of people and animals living upstream or downstream; a town or city water system.
4. *Domestic uses of water for washing:*—Nature's soft water—rain water collected in barrels; snow often melted for washing purposes; this is nature's soft water. It is soft because it has not reached the "salts of the earth". (Explain that table salt is but one of the many salts in the ground which make water hard. Have pupils discover why the ocean is salt.)

Hard Waters.—Some well waters and some town or city waters are hard; i.e., contain many salts; they require much soap and leave a scum; the water is softened by the soap which lathers readily. Large cities like New York and Chicago spend millions of dollars to soften water so as to save on soap.

Iron can be tasted in some waters; it seems to taste rusty; it often leaves rust stains on our clothes; rust stains are hard to remove.

Our bodies.—Baths should be taken regularly to remove dirt, lint and perspiration. Perspiration is a form of body waste. It adds to our comfort, however, by cooling us off in summer. (Pupils tell why they are cold when standing in a wet bathing suit after coming out of the water.) Washing teeth to prevent decay; washing hands before eating.

5. *Sewage:* the use of water in flushing; wastes of the house quickly and completely removed from our immediate living surroundings; need of a cess-pool pit in the country rather than the offensive method of heaving dish-water out the back door; need of covering cess-pool (breeding place for disease, flies and mosquitoes). In some places septic tanks are used.

A rural "city-home" would have septic tank for sewage disposal, a pressure tank system for water, and a Diesel plant for electric lights.

In towns and cities, a separate underground pipe-system is used for sewage; disposal plants treat sewage before emptying into rivers; these must be carefully located because of odours. Cities spend millions on treating the sewage before emptying into lakes, rivers or harbours.

Jobs to Do—Choose One:

1. Work out a simple experiment with brine, boiling it and condensing the steam to show that the condensed water is fresh.
2. Make a health poster, or posters.
3. Model on sand table a farm scene, show house located on a slope, barn on a hill. Locate other buildings and garden; locate well where it will be safe.
4. A boy is to make a windlass for drawing water from a well to show gain in force and power.
5. A boy is to make a model of a windmill and pump for farm scene.
6. Make a filter to show how muddy water can be made clear. Take a box or a funnel and insert layers (from bottom to top) rocks, pebbles, gravel, sand.
7. Work out a simple experiment with hard and soft water: Wash the hands in rain water and note how quickly a lather forms. This is soft water.

Wash the hands in hard water and note how it feels hard, and the scum formed. The scum wastes soap. Take hard water and boil it in a kettle. Try to collect the steam by letting it strike a bottle of snow or ice water. Collect enough condensed so that suds may be made with a little chipso or lux flakes. Note how quickly the lather forms. The hardness has been left in the kettle. Pupils may have seen the inside of tea-kettles.

Boiled water has a flat taste because the hardness (salts) has been boiled out.

Problem II: Water in Our Group Life.

Studies to Make—Choose One:

1. *Community Use of Water for Protection: Fire.*

Introductory discussion.—How communities interest themselves in water supply; the willingness of all parties to pay a little; the need of group protection from fire, germs, etc.; the place of the individual in the group and his relation to the safety of the whole. In Problem I, his needs were looked after by himself.

Preliminary thought.—Compare the isolated farm with the town or city community as regards: helplessness in case of fire; lack of amusement for leisure time (parks and playgrounds). Let pupils suggest ways to overcome disadvantages; e.g., fire extinguishers in the home, community hall, sports ground; the advantage of having a lake or river nearby for picnic use.

Fire prevention.—Care in preventing fires; danger of cleaning with gasoline; putting out camp-fires; care in burning rubbish, stubble, or brush.

Extinguishing fires.—The local bucket brigade and volunteer firemen; the elaborate fire-trucks, hook-and-ladder trucks, and chemical trucks; clearing the way for the fire-chief; paid firemen.

Fighting fires in summer and winter.

Use of water for protection.—Dust.

Street sprinkling—danger of dust in the air falling and settling on foods in grocery stores; in cities sprinkling is done at night when people are asleep; the dust and dirt are washed into the sewage system.

2. *Water and Recreation.*

Resorts.—Why established by Provinces and Dominion; a source of revenue; a holiday for health and pleasure; the preservation of wild life in our parks; location of Alberta parks; how to reach the nearest resort.

Recreations.—Camping, sailing, boating, swimming pools (natural and man-made); caution in swimming; artificial respiration.

Winter resorts.—Location and recreations.

Jobs to Do.—Choose One:

1. Paint a picture (free art) of a prairie, or forest fire.
2. Dress a doll as a fireman.
3. Write a composition on either of the following: "Water in the Life of a Fireman"; or "The Heroic Fireman".
4. Some pupil might bring a fire insurance policy to school, show it and explain the principles and values of fire insurance. Fire insurance: a group project; all pay, "club" stands the loss, and the individual is helped. Fire insurance protects us so that we can make a new start. Fires are not, however, profitable. Insurance (the little share each pays) is lower in places having a good fire equipment. Why?
5. An arithmetic problem: to find out and compare the cost of an insurance policy on a house and the cost of its loss by fire.
6. Make a map of Alberta (scale 100 miles to 1 inch; see Grade V workbook) and locate the seven cities, your school, and the parks; colour the parks.
7. *A Song to Learn for Your Next Hike:* "Row, Row, Row Your Boat" or "A Wet Sheet and a Flowing Sea"; a 4-part round (One Book Course—*Progressive Music Readers*).
8. *An Imaginary Telephone Conversation:* Two boys planning a camping trip; the composition is to be a dialogue. It should be practised and given orally.
9. *Make a Poster:* Advertise one of the parks; plan the arrangement and illustration. Cut paper designs are very effective. Watch for good lake scenes (Lake Louise, Maligne Lake, Waterton Lakes).

10. Pretend that a class-mate has gone beyond his depth in water. Discuss how to bring a drowning person to shore; apply resuscitation methods.

Problem III: Water and the Farmer.

Preliminary Discussion.—The all-important farmer; contrast farming with other industries, and farming in Western Canada with farming in the Eastern Provinces.

Studies to Make.—Choose One:

1. *Farming.*—Needs of crops (air, water, soil); types of crops (cereals, fodders, vegetables, fruits); methods of farming (dry, irrigation, strip, mixed, dairy, sowing spring and winter wheat); how shortage of water is dealt with.
2. *Stock-raising and dairying.*—Use of water in each; products; importance of cleanliness in dairies.
3. *Market gardening.*—Vegetables and fruits; large percentage of water in potatoes and tomatoes; these require water in growing.
4. Fruit growing in British Columbia, on the prairies, in Ontario and in the Maritimes.

Jobs to Do.—Choose One:

1. *A Sand-Table Model:* A part of southern Alberta from High River to Lethbridge. Show ranching in the foothills, stock on the ranges, stock on the Prince of Wales' Ranch; strip farming near Vulcan; irrigation farms near Lethbridge; sugar beet farms near Raymond; local dry farming on a particular farm (summer-fallow, shelter belts, wind-breaks). Label important places, and the sources from which water is used.

This job could be done very successfully in salt-and-flour.

2. Make a model of a modern dairy barn, showing how each stall has its drinking cup and how water is used to keep everything clean.
3. Dress a doll as a cowboy. Each part of a cowboy's dress has a use: be careful to get them all right.
4. Learn to sing the song: "At the Farm", *Progressive Music Reader*, Book II, page 28.
5. Crush a carrot or potato to discover the large amount of water in it.
6. Oral composition: A dialogue between the farmer and his son on "The prospects for a good crop".
7. Dramatize the story, "The Lark and Her Young Ones".

Problem IV: Water in Our Immediate Environment.

Studies to Make.—Choose One:

1. *Water and lifeless nature.*

Different forms of water: solid (ice, snow, hail, sleet); liquid (rain, clouds, mist, fog, dew); gas (unseen vapour); the process of condensation.

Erosion or scouring; also carrying power of running water: Running water makes streams and rivers; they widen out and form lakes.

Some of our south Alberta soil is carried to the

flood areas of southern United States, bringing fertile soil to the cotton and rice plantations.

Tides scour our harbours and allow ships to penetrate inland.

Rainfall in Alberta: Consult *Canada Year Book* and Meteorological Service weather maps. These are available on application. Compare with other Provinces.

2. *Water and animal life.*

How animals use water:

(a) Drinking: stock, pets, etc.; camels store water.

(b) Bathing: elephants spray, rhinos soak, birds puddle, cattle stand in water, to keep cool.

3. *Water in the life of plants.*

The plant's mouth: the root and its business; all food taken in must be dissolved (like sugar in cocoa).

Plants in cold lands with light rain: Eskimo moss. Plants in cool lands with medium rain: crops, trees, plants as in Alberta.

Plants in hot lands with heavy rains: jungle.

Plants in other regions: desert with very little rain; cactus is able to conserve water.

Overcoming drought: Southern Alberta farming methods—See Problem III.

Jobs to Do.—Choose One:

1. Perform some simple experiments on "forms of water".

Make a fog.—Open school door on a cold day; explain results.

Make dew.—Take moisture out of the air. Mist gathers on the outside surface of a tumbler of ice water. Frost on the inside of window panes is another example. This is how rain, snow and hail are formed.

Make water disappear.—Evaporate water in a boiling kettle. How roads and swamps and horse troughs dry up.

2. *Draw a thermometer.*—The two limits are based on the freezing and boiling points of water.

3. *The rain cycle.*—Volume of water for farming. Make a diagram tracing a drop of water from the ocean to the air above; to the mountains, clouds, rain on the crop; from the soil by evaporation, or from the leaves on to the air; and the return to the ocean by a river.

4. Make a rain gauge and keep a monthly record.

5. *Make a map* of Alberta's water routes, showing rivers and lakes. Talk of the use made of them; or—

Make a map of the water routes of North America and look for data on the 1936 floods in eastern and southern United States; or—

Make a map of the world ocean routes so as to show the travel of a grain of wheat from the home school district to England; locate the other world granaries (Australia, Argentine, Russia).

6. Draw some snow crystals to show the beauties and marvels of nature. Man could not construct such beauties.
7. Learn to sing: "April Rain".
8. Learn to recite: "Winter", by Shakespeare (Fifth Reader). Read Psalm 107.
9. Tell a story of how you take care of your pets with water.
10. Life in a pond. Make a net and scoop water-life forms from a pond. Balance the aquarium with plants such as pondweed, and see if the life can be kept all-winter.

Problem V: Water as Barrier and Bond.

A Study to Make.—The Great Discoverers.

Introductory Discussion.—For hundreds of years the ocean was a barrier to man, keeping him within the narrow bounds of the place where he was born, and preventing exploration; but as he grew more courageous and improved his ships, he ventured further and further from shore, till, nowadays, the great oceans are highways connecting all nations.

The map of the ancient world: its small size; the oceans as barriers, preventing exploration.

The history of ships, beginning with the dugout, kayak, canoe, and concluding with the "Queen Mary".

The early adventurers: the Phoenicians, the Barbary pirates; the Vikings, who reached Iceland; the French and British fishermen, who fished on the Grand Banks of Newfoundland from a very early period.

The great discoverers and circumnavigators: Stories of Columbus, Vasco da Gama, Cabot, Hudson, Magellan, Drake, Cook and Vancouver.

Jobs to Do: Choose Two or Three:

1. Read and prepare to tell the stories of several of the great discoverers.
2. Paint pictures (free art) illustrating incidents in the lives of the discoverers.
3. Make a map of the world and trace on it the routes of the great discoverers.
4. Learn to recite the poem, "Columbus", by Joaquin Miller.
5. Write and act a play showing "The Return of Sir Francis Drake" after his voyage around the world.

Culmination: Preparation of the Display:

A long table should be built up on trestles. The central display should be conspicuous. The following is suggested:

MODEL OF A CITY WATER SUPPLY SYSTEM: moss for mountains, spruce twigs for conifers; poplar branches for deciduous trees; stubble or wheat heads for grain; blue yarn for tributaries; blue sawdust (diamond-dyed) for rivers; white sawdust for roads; wire and matches for telephone lines; glass for bodies of water.

Tabs should show the tracing of the water supply from the mountains to the streams and rivers, lakes, dams, pipes, city system.

The other models will be grouped around. The order of

problems might be arranged with immediate-environment materials on the left of the main central model, and the more remote environment to the right.

Materials such as compositions, pictures, posters, charts, may be hung up on the wall, or on boards behind the display, to serve as a background. The blackboard may be suitably decorated to suggest the full study of "Water in relation to Man".

Discuss the planning of the layout with the pupils and let them contribute ideas and handle the work.

Possible Programme.—If visitors are invited, they should be welcomed and entertained. The entertainment should be very informal and should not consist of a specially memorized programme. A chairman will take charge and call on individuals to explain the job as a whole, and others to explain the component problems and sub-problems. The models should be carefully explained. Oral compositions might be given; written compositions read; songs sung; poems recited.

Outcomes:

Attitudes and Appreciations:

Interest in nature, appreciation of the power and beauty of nature, understanding that nature is governed by laws; interest in experiment to discover these laws; understanding that man is subject to nature's laws, and dependent upon his environment; interest in preserving the beauties of nature.

Abilities:

Learning to draw inferences from observation;
to use books as a source of material;
to work harmoniously in groups;
to show initiative;
to plan a job;
to carry one through.

Skills:

Arithmetic in measuring, in computing distances, in comparing sizes in former and recent times, in building models.

Art: constructed objects, posters, drawings as listed in the problems.

Music: part songs, rounds, folk songs, heart songs, nature study songs.

Reading: reading for pleasure and information; ability to read details for informational use; ability to browse through books quickly to discover valuable matter and to reject non-pertinent materials.

Additional Readings from the readers (Highroads and old Canadian Readers) :

Prose: "Rivers of Canada"—Sixth Reader.

"Loss of Brig"—Can. Readers, Book V.

"Robinson Crusoe"—Fifth Reader.

Poems: "The Sea"—Can. Readers, Book V.

"The Loss of the Birkenhead"—Can. Readers, Book V.

"The Song of the Brook"—Can. Readers, Book V.

"The Clouds"—Fourth Reader.

"The Brook Song"—Fourth Reader.

Handicraft: Models of wells, filters, canals, windmills, power wheel, etc. Sand table; salt and flour work; folder making; maps; drawings.

Writing: Recording various jobs as called for in the Problems.

Spelling: as met with incidentally; teacher to keep the list.

Composition: Oral—reports on topics on which data have been found; reports on models—how made and relation to study.

Written—short compositions.

Knowledge:

Geography: Canadian fishing centres and world importance; power and use to man in our home land; travel on lakes and rivers; water trails of commerce; drainage waters of community, and Dominion; weather in industry and occupations in Alberta and Canada.

History: early exploration and discovery—use of sailing ships; development of transportation types as man progressed.

Nature Study: pond life and aquaria; plant needs; how plants feed; how they "perspire"; observation of birds and their water needs.

Civics: Community group-life; protecting life of all by health laws; the good health of the individual; need for pure water; fire-fighting; parks and playgrounds.

Hygiene: our bodies; foods; drinks; sources of water; washing; sewage disposal.

Science: soft and hard waters; thermometers in our every-day lives; fog and cloud formations; other natural phenomena; rain cycle; purifying water supplies; how to soften water.

FOR REFERENCE

1. Public School Geography.
2. Readers for Grades III, IV, V, VI (Highways to Reading and the Canadian Readers). Pupils may suggest topics for reading.
3. Hygiene text.
4. Progressive Music Series.
5. Murdoch's Song Books—Series A and B.
6. Book of Knowledge.
7. Forestry booklet—Department of Forestry, Ottawa.
8. Our National Parks; Forest Conservation; Fire Prevention in Forests—Department of the Interior, Ottawa, Parks Bureau.
9. Publicity Branch and Department of Agriculture, Edmonton. Booklets on Alberta dealing with farming, irrigation, roads.

10. Water Power Branch, Department of Interior; Booklets on Water Power, St. Lawrence, Niagara, and of Canada in general.
11. Canadian Hygiene Council, Ottawa—Booklets on Water Supply, Sewage Disposal.
12. Public Health Bureau, Ottawa—Bulletins on Health.
13. Department of Public Health, Edmonton—Bulletins on Diseases Found in Drinking Waters.
14. Quaker Oats Co., Chicago—Booklet on Pathways of the World. This deals with the development of water transport (35c).
15. Raymond Sugar Beet Factory, Raymond, Alberta—Data on Sugar Beet.
16. Fisheries Branch, Ottawa—Booklet on Fish Hatcheries.
17. Magazines and catalogues for illustrations of refrigerators, stoves, pumps, etc.
18. Seasonal pictures of occupations, sports, games, animals, as they bear on the study of water.
20. The Canadian Readers, Books IV and V.

HOW CHRISTMAS CAME TO CANTERBURY: A PAGEANT OR PLAY

Theme:

How our ancestors lived in England long ago.

General Problem:

To picture by pageant, or dramatization and tableau, how Christianity came to England, and the Christmas story.

Some Suggested Studies:

- I. General geography of the British Isles, and of Europe; locating original homes of the Saxons, the Vikings; Rome, Palestine, and the ancient travel routes from one to the other.
- II. Our pagan forefathers: stories of the Norse gods—Odin, Thor, Loki, Balder; of Beowulf and Hrothgar; of Valhalla and the Valkyries.
- III. Life in a Saxon village: the four conquests of Britain; the Saxons settle down: how they made their living; their homes, clothes, tools, sports; Druidism, Stonehenge, etc.
- IV. The Christmas story: birth, life and death of Christ; Christmas customs, stories, poems, carols.
- V. Christmas comes to Canterbury: story of St. Augustine and the Angels in Rome; coming of the missionaries to England; their reception, churches built, etc.

Some Suggested Activities:

1. Outline map of Europe; locating of places, and tracing of routes.
2. Oral reproduction of stories.
3. Paint pictures (free art) of Odin and Mimer, Thor and His Hammer, Beowulf's Fight with Grendel, etc.
4. Sand-table set-up of Saxon village.

5. Models of ships, costumes, shields, helmets, weapons, tools, mitre and other properties for the play.
6. Preparation of Christmas stories to tell, poems to recite, carols to sing at the programme.
7. Model of a Saxon church.
8. Model of a stained glass window, made of paper or painted on the blackboard to serve as a background for the play.
9. Writing and preparation of play.

Desirable Outcomes:

Attitudes and Appreciations: interest in the past; seeing our forefathers as people like ourselves; increased love of Christmas story; appreciation of changes brought about by Christianity.

Abilities: growing ability to collect informational material from books; to make use of material found; to act on committes; to suggest ideas.

Skills: reading, language, some arithmetic in map drawing and measuring, art, music.

Knowledge: general geography of British Isles and western Europe; general knowledge of the conquests and settling of Britain; living conditions of early days; Norse myths; the life story of Christ, His teachings and their value to the community; some famous paintings; Chrirstmas carols.

REFERENCE BOOKS

- The Story of Christmas*, by R. J. Campbell (Collins).
The Other Wise Man, by Van Dyke (Harpers).
The First Christmas Tree, by Van Dyke (Harpers).
Christmas Stories, by Dickens (P. J. Collier & Son, 250 Park Ave., New York).
A Christmas Book, by Lewis and Heseltine (Dent & Sons, Toronto).
A Christmas Anthology of Prose and Verse (Cresset Press, Ltd., Fitzroy Square, London).
Christmas, by Schauffler (Moffat).
Christmas and Christmas Lore, by Crippe (Blackie & Son, Toronto).
Piers Plowman, Jr., Book IV, by J. J. Bell (George Philip & Son, London).
Piers Plowman, Jr., Book VI, by J. J. Bell (George Philip & Son, London).
Social Life in England, by John Finnemore (Macmillan Co.).
Days of Chivalry (55 B.C. - A.D. 1485), by F. W. Tickner (University of London Press, London).
The Story of Man (Book II), by Harper Cory (Geo. G. Harrap & Co., London).
Foundations of History (Book C), by Phyllis Wragge (Thos. Nelson & Sons).
The Story of the British People: A Reader for Pupils, (Nelson & Sons, Toronto).

The Children of Odin, by Padraic Colum (Macmillan & Co.).

The New Age History Readers (Book IV), Nelson & Sons, London).

THE SUN WORSHIPPERS: A FRIEZE, OR A GROUP OF MURALS

Theme:

The sun gives life to the world.

Motivation:

Children observe (1) the position of the sun and the lengthening of shadows (a shadow stick may be used) at 9 a.m., at noon, and at 4 p.m.; (2) the sun's effect on snow and ice; (3) the lengthening of the day; (4) stories of peoples south of the equator.

Prospects:

Discussions of the following:

- (1) The results of observations made in connection with motivation suggested above;
- (2) a list of things that we should like to know about the sun in relation to man and his life;
- (3) the arrangement of these things under topics for study and experiment;
- (4) a list of experiments which might be performed;
- (5) a list of reference material with scientific information about the solar system;
- (6) collecting illustrative material for display and reference.

Preparation: Five Problems.

1. To find out what scientists say of the sun; its composition; the solar system; making a model of the sun and planets; making a scale diagram showing relative sizes and distances.
2. The story of ancient sun worshippers: the Assyrians, Egyptians, Incas, Aztecs, etc.
3. The sun as the source of light.—It gives us day and night, enables us to see, gives us food, gives us colour. Working out simple experiments, and giving reports and talks.
4. The sun as the source of all heat.—It gives us the seasons, vegetations, and energy. How peat and coal have been formed. Oil, gas, electricity and radium. Making maps of the zones showing plant and animal life in each; effect of climate on the life and work of man.
5. The sun builds healthy bodies, makes bones strong and straight, makes the body manufacture vitamin D, which is necessary to distribute calcium in the body, kills disease germs, builds up resistance, makes for beauty and grace of the body. Paint pictures, posters, etc.

Culmination: A Frieze or a Group of Murals:

1. Organizing material for display and illustration.

2. Arranging room, tables, platform, curtains, properties.
3. Inviting guests.
4. Receiving and greeting guests.
5. Entertaining guests with pictures and programme.

Problem I: WHAT THE SCIENTISTS SAY OF THE SUN.

Studies to Make:

1. The composition of the sun; its age, movements, eclipses.
2. The solar system, possible origin; the planets, the stars; distance of the earth from the sun; comparison of the size and distance from the earth of sun and moon; the earth's path around the sun, the other planets; by whom discovered and how. The ancients believed that the sun was the centre of the universe: what we now know to be true.
3. Galileo, his life and work.
4. The principles of the construction of a telescope lens; observatories; the large observatories at Victoria and in California.
5. Value of glass in letting sunshine into our homes; the history of glass; the manufacture of glass; various kinds of glass; beauty of ancient glass; Venetian glass, glass in cathedral windows; modern achievements in glass making.

Jobs to Do:

1. Make a model of the solar system. Use paper pulp.
2. Paint (free art) a landscape such as might be found on the moon.
3. Memorize and use as selection for verse speaking the poem, "Lady Moon", by Lord Houghton.
4. Write an original story, "A Trip to the Moon".
5. Visit an observatory if possible; if not, borrow and examine a telescope, binoculars, opera glasses, or simply the lens of a pair of spectacles to show the magnifying of a lens.
6. Write a play from the story of Galileo.
7. Act the play "The Spectacles of Truth" in "The Ships of Araby" ("Far Horizons", Reader V).
8. Collect materials used in manufacturing glass; collect samples of different kinds of glass.
9. Plan a house to get the greatest benefit from sunlight.
10. Make a movie showing the history of glass.

Problem II: THE STORY OF THE SUN THROUGH THE AGES.

Studies to Make:

1. The sun as a god: Apollo of the Greeks; Ra of the Egyptians; the pyramids as sun dials; Balder, the sun god of the Norse; the death of Balder and its meaning.
2. The sun-worshippers: the Assyrians; the Druids and Stonehenge; the Incas of Peru and their wonderful Temple of the Sun, the interior almost entirely overlaid with gold and set with jewels; the Temple and Garden

of the Moon; the Aztecs and their sun-worshipping ceremonies; the Greeks and the Romans; the Indian sun dance; modern sun worshippers.

3. The planets as gods: Mars, god of war; Venus, goddess of love and beauty; Uranus, the father of the Titans; Jupiter, king of the gods.
4. Studies of famous pictures; as, Aurora.
5. The sun as the giver of good gifts through the ages.

Jobs to Do:

1. Dramatize stories: "The Wind and the Sun" (Aesop); "How the Old Man Stole the Sun's Leggings" (Black-foot).
2. Make an Egyptian design showing the sun as motif.
3. Make a model of Stonehenge, and give an explanatory talk.
4. Make a booklet of stories about the pagan gods.
5. Write a verse about the sun as the giver of joy and life to the world.
6. Prepare reports on the different sun-worshippers studied.
7. Dramatize the feast of Raymi (Inca—see Prescott's "Peru").

Problem III: THE SUN AS THE SOURCE OF ALL LIGHT.

Studies to Make:

1. The motion of the earth, diurnal, annual, resulting in day and night and the seasons; motion of the moon, its phases; effect on tides.
2. Standard time: longitude, time belts, radio observations; older methods of telling time; shadow sticks, sun dials, candles, development of clocks and watches, ancient forms of clocks and watches.
3. The time divisions: hours, days, weeks, years, degrees, etc.
4. How light enables us to see; study of the eye; eye hygiene; correct home lighting.
5. Composition of white light: the colour spectrum, the rainbow, the violet ray.
6. Land of the Midnight Sun: life among the Eskimos and other peoples who live where it is dark for half the year and light for half the year.
7. Art appreciation: pictures by Turner.

Jobs to Do:

1. Dramatize the motions of the earth and moon, sun, earth; let one child be the sun, another the earth, another the moon.
2. Make a sun dial and take observations.
3. Make a series of pictures illustrating the methods of telling time through the ages.
4. Collect world speed records and make calculations.
5. Find out how the eye takes a picture, and make a drawing to show this.

6. Use prisms to make colour spectrum.
7. Make a chart showing the position of the sun for one summer day and for one winter day in the land of the Eskimos.

Problem IV: THE SUN AS THE SOURCE OF ALL HEAT.

Studies to Make:

1. Man's occupations (farmer) vary with the seasons. Preparations for winter, for spring, for summer, for autumn; collecting suitable clothing and food.
2. Latitude: the zones; comparison of peoples living in different latitudes; i.e., people living in temperate zones are more progressive and energetic than those of the tropical or frigid zones; comparisons of plant life: the jungles, tundra, forests, deserts.
3. Plant and animal adaptations of the world; as, the cactus, the camel, etc.
4. Influence of heat on liquids, gases, solids; evaporation, distillation, contraction and expansion; measuring temperature—the thermometer.
5. How man uses the sun's energy: early ways of making fire; its contribution to man's comfort and safety.
6. Coal: how produced and used; by-products of value.
7. Gas, oil and radium; deposits in North America.

Jobs to Do:

1. Read stories: "The Raven", page 262; "The Finding of Fire", page 311, in "The Ships of Araby" ("Far Horizons", Reader V); and "Prometheus Steals Fire", in "Hearts High" ("Far Horizons", Reader VI). Reproduce or make reports on them.
2. Make a chart or diagram of the zones, and show plant and animal life in each.
3. Paint pictures of jungle, tundra, desert, forest, etc.
4. Make observations and reports on plant and animal adaptations.
5. Observe and report upon the laying of rails on a railway.
6. Perform simple experiments with heating gases and liquids. Give reports on balloon and dirigible travel.
7. Keep temperature records: out of doors, in the school room, and of the body.
8. Experiment with producing heat by different methods.
9. Dramatize "Crossing the Equator" on a ship.
10. Make a sand-table set-up of a prehistoric forest, showing the forests which became the coal we now use.

Problem V: THE SUN MAKES A HEALTHY BODY.

Studies to Make:

1. Effect of sun on man's body, bones, teeth, blood. Sunshine improves the tone of the skin and muscles, builds up resistance to disease, and gives happiness.
2. Vitamins and foods: stories of life on ships before the days of refrigeration, or food preservation; scurvy; stories of rickets among the children of fisher folk in

foggy countries; use of cod liver oil or "bottled sunshine".

3. Effect of the sun on disease germs; tuberculosis; healing of wounds; sun bathing and necessary precautions; dangers of sunstroke, first aid for sunstroke, treatment of sunburn.
4. Sunlight as a disinfectant or cleaner; a protection for man by killing germs; importance of airing rooms, clothing, etc.
5. Learn the song, "All That's Good and Great", in the *Progressive Music Readers*.

Jobs to Do:

1. Make health posters.
2. Plan menus.
3. Tell story of how the Indians cured Cartier's men of scurvy.
4. Give first aid for sunstroke.
5. Show how to treat sunburn.
6. Make a food chart showing carbohydrates, proteins, fats and vitamins.

Culmination:

The murals may be made on newsprint or brown wrapping paper, or on the heavy paper wrapped around the rolls of newsprint. (This may be obtained free from any city newspaper office, and is desirable because of its smooth surface.) Media could be showcard colour, kalsomine or blackboard chalks. Preparatory outlines may be made with charcoal. Each mural should not be smaller than 36"×18", if wall space permits.

These murals may be displayed on the walls, at a convenient height. One or more pupils could act as guides to explain them to visitors.

The models, charts and posters could be displayed on trestle tables, if space permits. Informative talks by pupils, with dramatizations, songs and verse speaking, would explain the scope of the enterprise.

Readings:

The Sun's Travels—Stevenson.
Origin of Sunday, Monday, etc.
Story of Phaeton.
The Sunshine Has a Pleasant Way.
Sun's Up—Roberts.
How Many Seconds in a Minute?—Rossetti.
Pippa Passes.
Hark, Hark, the Lark.

Poems and Stories:

From "Hearts High", "Far Horizons", Reader VI:
The Sun Worshippers.
Prometheus Steals Fire.
Olympus.

From "The Ships of Araby", "Far Horizons", Reader V:
Plants That Warm Us.

The Spectacles of Truth.
 Waken, Lords and Ladies Gay.
 From "For the Children's Hour":
 The Wind and the Sun.
 Phaeton.
 The Sun's Sisters.
 From "A Child's Garden of Verses":
 The Sun's Travels.
 Summer Sun.
 My Shadow.
 From "For Days and Days":
 The Sunshine Has a Pleasant Way.
 From "Many Voices", Book 2, by Mona Swanini:
 "The Canticle of Brother Sun".
 From "The Poetry Book 3":
 If I Were a Sunbeam.
 From the Canadian Reader, Book 5:
 Creation (page 405).
 Psalm 121.
 Ecclesiastes, Chapter 12, verses 1-7.

Songs:

"Morning Comes Early", from "A Canadian Song Book",
 by Sir Ernest MacMillan.
 "From All That Dwell Below the Skies", from "A Canadian Song Book".
 "The Presbyterian Cat", from "A Canadian Song Book".
 "Hark, Hark, the Lark", from "A Canadian Song Book".
 "Now the Day Is Over", from any hymn book.
 "Sun of My Soul", from any hymn book.

Folk Dance:

"Night Dance of the Elves", in "Rote Songs and Singing Games", by Wickett.

Interesting Phraseology:

sparkling	a glorious day
radiance, ray, radiant	sun-down, sun-rise, sun-set
brilliant	dawn, daylight
shine, sunshine	twilight
gleam, gleaming	noon, mid-day
sunbeam, sun's ray	scorching heat
a shaft of sunlight	blistering heat
the blazing sun	dazzling sunlight, etc.

Desirable Outcomes:

Attitudes and Appreciations: Some understanding of the magnificence of creation and reverence for the God of the universe; appreciation of modern inventions, which increase our knowledge of the wonders of creation; development of the modern attitude of delight in the sun as a source of health and comfort.

Abilities: Increased ability to observe; to see beauty and greatness in nature; to conduct experiments; to draw inferences; to work in groups; to collect information and make reports.

Skills: Reading to collect facts; oral language in making reports; written language in writing plays; arithmetic in calculating solar distances and in studying time; art, design, colour theory, lettering, picture appreciation; singing of suitable songs.

Knowledges:

Health: Value of sun to the body: as a source of food, as a builder of resistance, as disinfectant; study of the eye.

Geography: Latitude and longitude: the zones; life of man, animals and plants; standard time; the solar system; life among the native races of North America.

History: Customs of the sun-worshippers: Assyrians, Egyptians, Druids, Incas, Aztecs, Indians; story of glass; mediaeval plagues caused by dark, narrow streets, lack of sunlight, fresh air and fresh food.

Science: The sun as a source of light, heat, energy; the thermometer; the spectrum; the telescope; Galileo; effect of heat on solids, liquids and gases.

Literature: Greek and Norse myths.

REFERENCE BOOKS

Nature Study and Science, by Trafton; Macmillan.

Science Readers, Books V, VI, VII, by W. L. & S. H. Nida; Heath.

The Book of the Rocks, by D. J. Dickie; Dent.

Hearts High, Far Horizons, Reader VI; Dent.

Ships of Araby, Far Horizons, Reader V; Dent.

Enchanted Paths, Far Horizons, Reader IV; Dent.

The Work of the Scientists, by Patch & Howe; Macmillan.

From the Earth to the Moon; by Jules Verne.

For the Children's Hour, by Bailey & Lewis; Bradley.

The Canadian Readers, Books III, IV, V.

Against Death, by Paul de Kruif.

The Hunger Fighters, by Paul de Kruif.

Peru, by W. H. Prescott; Vols. I and II; P. F. Collier.

**IN SEARCH OF THE WESTERN SEA: AN ANIMATED
MAP OF NORTH AMERICA**

Theme:

How Man Lives and Travels in the Wilderness.

Motivation:

(Suggested) Reading "Westward Ho", from the Sixth Reader.

General Problem:

To prepare an animated map of North America, showing outline, zones, great regions, drainage, areas of plant and animal life, landing places of the great discoverers, routes of travel of the explorers, modes of travel, obstacles met with and overcome.

Some Suggested Studies or Problems:

1. *Why people of the old world were anxious to reach the Western Sea:* ancient caravan routes to the East; silks,

jewels, spices from the East; importance of spices to preserve food in the days before refrigeration; the Norsemen; need of timber; the fishermen of the Grand Banks, French and English; the race of the European kings for increased territory.

2. *The stories of Cabot, Cartier, Champlain, reaching the mainland:* the first settlements; search for the North-West Passage—Hudson, Frobisher, Davis, Gilbert, Franklin; penetration to the interior—La Salle, Joliet; the discovery and exploration of the St. Lawrence, the Great Lakes, and the Mississippi; the general outline of North America.
3. *The country which the explorers found:* the surface of North America—soil, trees, hills; how the highlands were formed; drainage, rivers, lakes, influence on settlements, centres, manufacturing; the resources of North America—fish, timber, minerals, animals, and the resultant industries; people of North America—tribes, life, food and customs.
4. *How the animals helped:* the stories of the fur traders—Radisson, Vérendyre, Kelsey, Hendry, Hearne, Alexander Henry, Peter Pond; the great fur-trading companies; their routes, posts, methods of transport and trade; fur-bearing animals of North America, compared with those of the world; life at a fur-trading post.
5. *The end of the trail:* stories of Mackenzie, Thompson, Fraser, Lewis and Clarke; the Rocky Mountains, the great barrier; difficulties offered by semi-hostile tribes; geography of the West Coast.

Some Suggested Activities:

1. Make a map of ancient caravan routes.
2. Experiment with keeping food under varying conditions.
3. Collect spices used in preservation.
4. Make pictures of the Norsemen's ships.
5. Dramatize Cabot's departure from Bristol.
6. Find out what the first maps of North America were like.
7. Collect materials for a large map.
8. Give reports on stories of explorers.
9. Trace routes on individual outline maps.
10. Make pictures of (1) Cartier's ships in the Gulf of St. Lawrence; (2) Hudson's ships; (3) scenes from the voyages of Marquette and Joliet, or La Salle.
11. Draw an outline of North America on a large sheet of brown paper (8'×5') as the beginning of the animated map.
12. Dramatize the story, "Hudson Set Adrift".
13. Prepare individual maps of North America; trace upon them the St. Lawrence and Mississippi Rivers, and show routes followed by explorers.

14. Write the diary of the factor at a fur-trading post.
15. Paint scenes of Niagara Falls, Lake of the Woods, etc.
16. Model an Indian village on the sand table.
17. Make individual maps of North America, showing surface, drainage, chief centres.
18. Make a relief map with salt and flour, showing coastal features and regions.
19. Draw animals for maps.
20. Make a collection of different kinds of fur.
21. Complete the large map.

Suggested Culmination:

The map should occupy a prominent position, and one corner of the room should be arranged as a fur-trading post. Life at the fort and adventures of the explorers may be represented by tableaux or dramatizations. All pupils should be dressed in typical costumes. Maps, models, art and collections should be on display.

Outcomes:

Attitudes and Appreciations:

Admiration for the courage, perseverance, initiative, ingenuity and physical strength shown by the explorers; some understanding of the vast expanse and splendid waterways of our country; respect for the achievements of the past which have made possible the present.

Abilities:

Silent reading for collection of facts; language in reports, reproductions and dramatizations; arithmetic in computing distances; map drawing; art—pictures, collected and original, lettering, animal drawings; picture appreciation—pictures by Canadian artists: Thompson, Gagnon, Hemingway, Leighton, Gissing, etc.

Knowledge:

Health: preservation of foods; foods used by the explorers; clothing adapted to climate.

History: the history of the discovery and exploration of North America and of Canada.

Geography: general geography of North America and of Canada.

Literature: stories of the explorers; poems of adventure and travel; dramatizations of famous incidents and scenes; ballads and songs of the voyageurs.

REFERENCE BOOKS

The Authorized Readers.

The Romance of History Series; Gage.

The Canadian History Readers; Dent.

Public School Geography.

The Far Horizons Readers, Books IV, V, VI; Dent.

The Canadian Readers, Book V.

An Animated Atlas of Canada may be obtained from The Montreal Herald Printing House, price 35c.

An Animated Map of the United States is described in

The School Arts Magazine, April, 1932 (edited by P. J. Lemos).

By Star and Compass, by W. S. Wallace; Oxford Press.

When Canada Was New France, by G. Locke; Ryerson.

Knights-Errant of the Wilderness, by M. Long; Ryerson.

Lords of the North, by Agnes Laut; Ryerson.

Heralds of Empire, by Agnes Laut; Ryerson.

Three Centuries of Canadian History, by J. E. Wetherell; Musson.

Explorers, Soldiers and Statesmen, by W. J. Karr; Dent.

Mackenzie and His Voyages, by A. Woollacot; Dent.

The Book of the Rocks, by D. J. Dickie; Dent.

Blackfoot Trails, by E. A. Corbett; Macmillan.

FOREST AND STREAM: A MOVIE FILM AND ILLUSTRATED LECTURE

Theme:

Trees are very valuable in supplying many of men's needs. They beautify man's surroundings, and provide shelter, food, clothing, tools, recreation, education, luxuries.

Motivation:

A nature walk; leafing out of trees in the spring; forest fires in the fall; picture of a lumber-jack or lumber camp; talks about trees and their value; the commercial products of trees.

Prospects:

Discussions of the following:

- (a) Reference material for further information; books, bulletins, reports, pictures.
- (b) How pictures, clippings and specimens can be preserved for use.
- (c) Things we should like to know about trees and their use; how this material could be arranged under topics for study.
- (d) How we can display the results of our study (the culmination).
- (e) The making of the movie machine.
- (f) The making of the film; size of the picture; material and media.
- (g) Other illustrative material which might be used for the lecture and for room decoration: a frieze showing lumbering operations; specimens mounted; charts, graphs, maps, posters, models; sand-table set-up.

Preparation: Five Problems.

I. A study of trees.—Their esthetic value; growth and use in our immediate vicinity.

To make a collection of specimens, leaves, bark, seeds, cones, wood, pictures of types of trees.

II. The forest regions of Canada.—The value of Canadian trees in supplying man's needs.

To make a frieze showing lumbering activities.

III. The pulp and paper industry of Canada is one of Canada's major industries.

To make a movie film showing the development of written records from early days to a modern paper mill.

- IV. The conservation of forests.—What Canada is doing to preserve her natural wealth.

To make a set of posters. What we can do to help preserve trees and forests.

- V. The needs of man supplied by trees of other lands.

To make a large chart of mounted products obtained from trees outside the immediate vicinity.

Culmination: The Illustrated Lecture.

- (a) Assembling the material.
- (b) Decorating the room.
- (c) Inviting the guests.
- (d) Entertaining the guests.
- (e) Clearing away; and writing notes of thanks.

PROBLEM I.

The study of trees; to make a collection of specimens—leaves, bark, seeds, cones, wood. Pictures of types of trees in immediate vicinity.

- (a) Recognize different trees by their leaves, bark, shape, seed.
- (b) The value of root, trunk, leaf, sap, seed, in preserving the life of a tree; the structure of the leaf; transpiration; respiration; manufacturing in the leaf.
- (c) Growth of trees year by year; how to tell ages of trees; stories found in the trunks of old trees.
- (d) The value of trees:
 - (1) In the city—shade, ornament and beauty, home for birds. Care of trees in parks, boulevards, streets. How to plant a tree.
 - (2) On the farm—fuel, windbreak and shelter.
 - (3) In commerce—articles of trade and commerce, material for public utilities.
 - (4) In controlling moisture. Forests help to keep the rivers supplied with water.

Things to do:

- 1. Make drawings of trees.
- 2. Make leaf prints on smoke-covered paper or in plasticine or clay.
- 3. Use leaves and cones in design.
- 4. Learn a poem about trees, and write original verses.
- 5. Plant a tree in the school-yard or at home and care for it.
- 6. Make a booklet containing pictures of different types of trees.
- 7. Make collections: mount and name leaves, bark, seed, cones, wood.

PROBLEM II.

The forest regions of Canada. The value of forests in supplying man's needs.

To make a frieze showing lumbering activities.

- A. Location of Canada's forest regions. The Pacific forest, the Atlantic forest, the great northern forest, park lands. Abundant growth dependent upon climatic conditions, soil, and freedom from violent wind-storms. Soil.—A comparative study of Canada's five natural divisions.

Climate: temperature and moisture.

Temperature is governed by many factors; e.g., latitude, altitude, winds, ocean currents, etc. Rainfall depends on direction of prevailing winds, presence and direction of mountains, distance from the sea.

Condensation of moisture is caused by cooling of the vapor-laden air (e.g., going up the side of a mountain).

- B. Types of trees in each forest; kinds of lumber and use. The trees of the Atlantic forest have been largely cut down to give place to farms. These trees were both a help and a hindrance to the early French settlers. Stump fences are still to be seen.
- (1) They provided shelter, tools, material for boats, medicine for the control of scurvy, fuel.
 - (2) Trade developed with West Indies in pitch, tar, barrels, etc. The Norsemen visited America's shores and carried back supplies of wood.
 - (1) They provided ambush for the Indians in their attacks.
 - (2) Clearing the soil for landing was difficult.
- C. How the lumbering industry is carried on; selecting the trees; cutting, sawing, hauling. The use of rivers in logging; the lumber camp, the life of a lumber-jack, dress, food, supplies; visitors to the lumber camp—doctor, minister, inspector.
- D. Reckoning lumber in a standing tree as a woodsman does. Reckoning by cords.

Things to do:

1. Make a large outline map of Canada showing the five natural divisions, the forest regions, rivers used for logging operations.
2. Make a rainfall map showing mountain ranges, direction of prevailing winds, path of ocean currents affecting climate.
3. Make models of a lumber camp and of a lumber-jack, sawmill, lumber yard.
4. Make a diary kept by a lumber-jack.
5. Make a picture for the frieze showing scenes in the life of a tree from the forest to the finished product.
6. Write stories of school desks:
 - (a) Of what are they made?
 - (b) Where may the wood have come from?
 - (c) Where were they probably made?

- (d) What is varnish, and from where did it come?
- (e) By what route did it arrive at its present home?
- 7. Read about the following and tell stories:
 - (a) The Norse voyages to the New World; what was found and carried back.
 - (b) The Early French settlements, the Iroquois attacks; the method of attack and route of approach.
 - (c) Jacques Cartier's winter in Canada; the control of scurvy. Suppose you are one of Jacques Cartier's men. Tell the story of your experiences in the new world when you arrive back home.
 - (d) Early trade with the West Indies.
 - (e) Bees and barn-raising in the days of the early settlers.
 - (f) The U.E. Loyalists; use of potash in pioneer days.

PROBLEM III.

The pulp and paper industry of Canada is one of Canada's major industries.

To make a movie film showing the development of written records from early days to a modern paper mill.

- A. The Egyptians wrote their records on stone in what was at first a sign language. The finding of the Rossetti Stone gave the key to the interpretation of this language. Later an alphabet was developed. The Greeks and Romans used wax tablets and papyrus. Their writings are a great contribution to the civilized world. In medieval times, vellum and parchment were used. The books were beautifully illuminated, written by hand, and preserved in the monasteries. They are greatly prized today.
When the printing-press was introduced, paper began to be used. Rags and wood, chiefly, provide the pulp for paper. Canada is one of the world's greatest producers of paper.
- B. The great northern forest as a producer of wood-pulp; kinds of trees used; steps in the process of making paper; the pulp and paper mill, the barker, grinder, digester, bleacher, screener, heated rollers; the amount of wood needed for an edition of a large newspaper.
- C. The use of water-power in the industry.
 - (a) Direct and indirect power; making electricity; the use of "white coal" or electricity.
 - (b) Canada's great wealth of water-power, and streams which provide it; location of pulp and paper centres throughout Canada.
- D. The value of the great northern forest as a home for fur-bearing animals, and as a means of livelihood for the trapper.
 - (a) Kinds of animals and value of these; how they are trapped; how they are transported; where they shipped; great fur-trading centres.

- (b) The life of the trapper—his hut, dress, food, manner of travelling. Canada's first trappers—Radisson and Groseilliers; the outcome of their expeditions; the *coureurs de bois*.

Things to do:

1. Find pictures of old records and learn their meaning.
2. Copy some Egyptian writing and translate it.
3. Make an illuminated page of your own. Practice on capitals first.
4. Make a graph comparing Canada's water-power with that of other countries.
5. Model a trapper and a trapper's hut.
6. Make a collection of pictures showing articles made of paper, and mount samples of different kinds of paper.
7. Make a map of Canada showing the great northern forest; sites of pulp and paper mills; streams and falls which provide power; and routes by which paper and pulp is shipped.
8. Make the movie machine.
9. Make the film, and fifteen or more pictures. (Wall paper makes a strong film, and news-print serves for crayon drawings.)
10. Make a small sheet of paper from wood shavings.
11. Discuss any other means of making paper.
12. Visit a newspaper plant.

PROBLEM IV.

The conservation of forests. What Canada is doing to preserve her natural wealth. To make a set of posters.

- A. The value to Canada of her timber resources compared with other industries; revenue derived; comparisons with Norway, Sweden, Germany and France.
- B. Ports, routes and export.
- C. Waste in our forests and how prevented; what the government is doing; what we can do; fire patrol and lookout stations; lessons to be learned from other nations on forest preservation (Norway, Germany, etc.).
- D. Canada's national parks—extent, value, wild life, etc.

Things to do:

1. Make graphs showing the value of Canada's export of pulp and paper compared with that of other countries; the value of Canada's pulp and paper industry compared with that of other Canadian industries.
2. Make posters showing what the government is doing to preserve our forests, and how we can help.
3. Read and tell stories about the work of beavers; about great forest fires and fire control.

PROBLEM V.

The needs of man supplied by trees of other lands. To make a large chart of mounted products obtained from trees outside the immediate vicinity.

- A. Products from sap: Maple sugar, tar, pitch, resin, rubber, turpentine.
- B. Products from bark and wood: Dyes, tannin, extracts, drugs.
- C. Products from leaves: Drugs, drinks.
- D. Products from seed: Foods, extracts, drinks, spices, palm-oil.

Things to do:

1. Make the chart of mounted products.
- 2 Read a story about one or more of the following, and tell it or give it in pantomime: Making turpentine; gathering rubber; the uses of spices in medieval times—where obtained, routes taken in search of these spices; palm-oil and the soap industry; the quebracho tree of South America—its use for tannin and its substitutes (celanese); vegetable ivory and buttons; the palms and panama hats.

The Culmination:

The movie machinery can be made from an ordinary large-sized packing box. The heavy rollers round which the newsprint is wrapped make splendid reels for the film.

The pictures should be trimmed, outlined in brown or black, and mounted on a long strip of heavy paper. (Cheap wall paper is suitable.)

Pictures suggested are the following: Egyptian records on stone; Phoenician records; the Rossetti Stone—sentence interpreted; records on wax tablets; Indian sign language, mediaeval illuminated manuscripts, a mediaeval book, the roll or script, the script folded and cut to make pages and leaves; a good stand of timber; the lumber camp, the lumber-jack at work; hauling the logs, a raft of logs, a forest fire, fire outlooks; beavers at work; a paper mill—the barker, grinder, digester, bleacher, screener, heated rollers; the first printing press; a modern printing press.

(These drawings may be very crude and far from accurate, but so long as they have a meaning to the child the purpose of the activity has been achieved.)

One corner of the room may be fitted up as a mediaeval scriptorium, displaying copies of hand-written manuscripts (illuminated) or original poems and stories illustrated.

In another corner on a sand table may be modelled the forest, the camp and its activities, the transportation of the logs, the mill and the lumber yard, or a modern pulp and paper centre. (See Shipley, "Pulp and Paper Making".)

Large maps and charts drawn by the pupils may be mounted together on a strip of picture moulding or piece of broom handle and hung in a convenient place for reference.

Posters, the frieze of lumbering activities, and art problems, may be used as decoration.

Collections, booklets, and models may be displayed on trestle tables.

Outcomes:

Attitudes and Appreciations: additional interest for leisure time activities; deepened interest in environment; realization of the great value of our trees, and of need for forest conservation; increased respect and friendliness for other nations, through comparing our methods with theirs; a tendency to seek the causes of natural conditions.

Abilities: to co-operate through the understanding of collective needs and operations; to use books of reference; to show initiative and originality; to attack a problem with confidence.

Skills: reading and collecting material; oral language in reports, reproduction of stories, recitation of verse, and dramatizations; arithmetic in measuring lumber; art—design, printing, pencil technique, modelling; music—songs about trees.

Knowledge:

Health: outdoor life, foods from trees, food of the camp.

History: written records, historic manuscripts, illumination, preservation of manuscripts, Caxton and the printing press, early French settlements, United Empire Loyalists and their use of trees, early traders in silks and spices.

Geography: forest regions of Canada and North America; climate and soil; rivers—use in lumbering industry; natural divisions of Canada and North America.

Science: study of trees; the beaver; water power; making of paper; making of potash in pioneer days; forest-fire prevention.

Literature: poems about trees and rivers; stories of the great forests; the control of falls and rapids.

Suggested Selections:

The Spruce Tree, *Highroads*, Book IV.

Trees, *Highroads*, Book V.

A Canadian Camping Song, *Highroads*, Book V.

When the Drive Goes Down, *Highroads*, Book IV.

The Coureurs de Bois, *Highroads*, Book V.

The Beaver Hat, *Highroads*, Book V.

In the Great Woods, *Far Horizons*, Book IV (Enchanted Paths).

Dryads in Winter, *Far Horizons*, Book IV (Enchanted Paths).

The West Wind, *Far Horizons*, Book VI (Hearts High).

Grey Owl; the Beaver Man, *Far Horizons*, Book VI (Hearts High).

Michael Faraday and the Dynamo, *Far Horizons*, Book VI (Hearts High).

Niagara Power, *Far Horizons*, Book VI (Hearts High).

The Conquest of the Dneiper, *Far Horizons*, Book VI (Hearts High).

Rivers of Canada, *Highroads*, Book VI.

Saguenay, *Highroads*, Book VI.

Picture Writing, *Highroads*, Book IV.

King John and the Abbot, *Highroads*, Book IV.

The Silent Watcher, *Highroads*, Book IV.
 In the Malay Jungle, *Far Horizons*, Book VI (Hearts High).
 Water Power in Manitoba, *Far Horizons*, Book VI (Hearts High).
 At School in Athens, *Far Horizons*, Book VI (Hearts High).
 The Story of Felt Hats, *Far Horizons*, Book V (Ships of Araby).
 The Beaver, *Far Horizons*, Book V (Ships of Araby).
 How the Raccoon is Taken, *Far Horizons*, Book V (Ships of Araby).
 A Canadian Camping Song, *Canadian Reader*, Book V.
 The Saw Mill, *Canadian Reader*, Book V.
 The Maple, *Canadian Reader*, Book V.
 The First Painter, *Canadian Reader*, Book V.
 The Beavers, *Canadian Reader*, Book V.
 Three Trees, *Canadian Reader*, Book V.
Forestry Booklet; Department of Forestry, Ottawa.
 Booklets on *Our Native Parks and Forest Conservation*;
Fire Prevention in Our National Parks.
 Booklet on *Power—St. Lawrence, Niagara and Canada*;
 Water Power Branch.
Canada Year Book; Dominion Bureau of Statistics,
 Ottawa.
South America, by Carpenter; American Book Co.
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Pulp and Paper, by Shipley; Longmans Green & Co.,
 Toronto.
The Story of Man, Book I, by Harper Cory; Geo. G. Har-
 rap & Co., London.
How We Are Clothed, Fed, Sheltered, by Chamberlain;
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The World We Live In and How It Came to Be, by Ger-
 trude Hartman; Macmillan Publishing Co.
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 & Co., Boston.
Studies in Citizenship, James McCaig; Educational Pub-
 lishing Co., Toronto.
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HERE COMES SUMMER: AN OUTDOOR FÊTE

Theme:

Man's Expression of Joy in Nature.

Motivation:

Return of the birds and the coming of spring.

Coronation of King Edward VIII.

Newspaper account of crowning of May Queen.

General Problem:

To arrange an outdoor fête of singing games, songs, folk dances, verse speaking, dramatizations, and rhythmic exer-

cises to be given in a setting prepared by the group.

Some suggested studies:

- I. Joy of spring: Modern inventions which have lightened the gloom of winter for us: glass, electricity, radio, heating and ventilation; what the coming of spring with its sun, bud and blossom must have meant in mediaeval times; history of May Day, May dances, and garlands, blessing of the wells; Maid Marion, the first May Queen, and Robin Hood, King of the May.
- II. Colors and sights of spring: Plans for arranging the school grounds for the fête; lay out the flower beds, choose annuals which may be depended upon to bloom in five or six weeks—sweet alyssum, nasturtium, bachelor's button; preparation of soil; transplanting; the parts of the flower; work of insects in relation to flowers; bees and honey-making.
- III. The sounds of spring: Birds: home life of, migration, food, songs, relation to man; to identify local birds by field marks; observation and study of one bird; insects; rain, running water; leaves, frogs.
- IV. History of Midsummer Eve, June 23: Midsummer Day was a holy day, St. John's Eve; refer to sun worshippers and Druids; British fairy lore (Fairies of Caldon Low, Puck of Pook's Hill by Kipling, The Midsummer Night's Dream by Shakespeare: Titania, Oberon, Queen and King of Fairyland and their train of Elves). The mediaeval midsummer customs: the village green, morris dancing, archery and other sports.
- V. Assembly of programme: selection and arrangement of items; pupils print, or write, and decorate programme; design and decorate invitation cards; further practice of programme numbers; the arrangement of school grounds as a village green with archery butts and booths, as a setting for the fête.

Some suggested activities:

1. Prepare reports on old and new methods of lighting; contrast in living conditions between mediaeval and modern times; history of May Day.
2. Search for, list, choose and learn verses and songs which express man's joy in springtime.
3. Choose and prepare one or two selections, suitable for verse speaking, as: "Here and There" (Reader IV); "Robin Hood's Wedding" (Enchanted Paths).
4. Write and illustrate original verse expressing pupil's joy in spring.
5. Dramatize the crowning of the first May Queen, Maid Marion.
6. Learn the May Pole Dance and the song sung by the bystanders: Progressive Music Reader, Book III, p. 22.
7. Draw a plan of an idealized "school-yard beautiful".
8. Make a flower calendar, or a "Name This Flower" booklet.
9. By observation and experiment discover types of soil

in school yard and in district; test for drainage and fertility; select seeds, plants, trees which will grow in the school yard soil.

10. Make flower beds and plant vines, shrubs, and flowers; transplant wild shrubs and trees.
11. Report on life and work of the bee, including value and uses of honey.
12. Make different types of bird houses to be set up in the school grounds.
13. Make a bird bath for school grounds.
14. Imitate bird calls.
15. Set up archery butts and prepare target and arrows for a contest.
16. Learn suitable folk and morris dances.
17. Learn suitable songs about Maytime, flowers and birds: "Ye Spotted Snakes", "It was a Lover and His Lass" (Progressive Music Reader Book II and III).
18. From study of parts of flower use conventionalized flower design for invitation to guests.

Suggested Culmination:

Centre the culmination in the dramatization of the First May Queen, associating with it singing games, folk and morris dances, songs, verse speaking, traditional stories told; the programme to be followed by a tour of the school grounds to inspect the growing things, the bird houses; to buy simple refreshments, souvenirs of the day, etc., in the booths; to watch the archery contest, the bouts at quarter staff or the bowling on the green.

Outcomes:

Attitudes and Appreciations: appreciation of the beauty of nature as interpreted by tradition, story, song, verse, rhythmic movement; increased interest in expressing feelings through a variety of artistic media.

Abilities: to display self-confidence in appearing before an audience; to express ideas effectively in public; to assume the responsibility of leadership; to make critical judgments, and to choose intelligently.

Skills: silent reading in collecting materials; oral language in reading, reciting and verse speaking; written language in reports and verse; arithmetic in laying out grounds and plots, making plans; art: illustration, design, printing, artistic arrangement; music and dancing and songs in singing games, simple instruments (Pipe and Rhythm Bands).

Knowledge:

Health: Value of outdoor life; muscle control, poise, body balance, posture, grace of movement.

History: Life and customs of "Merrie England"; costumes; story of the long-bow.

Geography: Soil map of district and Province; land survey of the Province.

Science: soil, flower, bird and insect study.

Literature: stories of Robin Hood; play: *The Midsummer Night's Dream*; fairy, flower, bird and spring-time poetry.

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PROGRAMME OF STUDIES FOR THE
ELEMENTARY SCHOOL GRADES 1 TO
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